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THE BRICKBUILDER

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Architectural Faience	II	Clay Chemicals	IV
“ Terra Cotta	II and III	Fireproofing	IV
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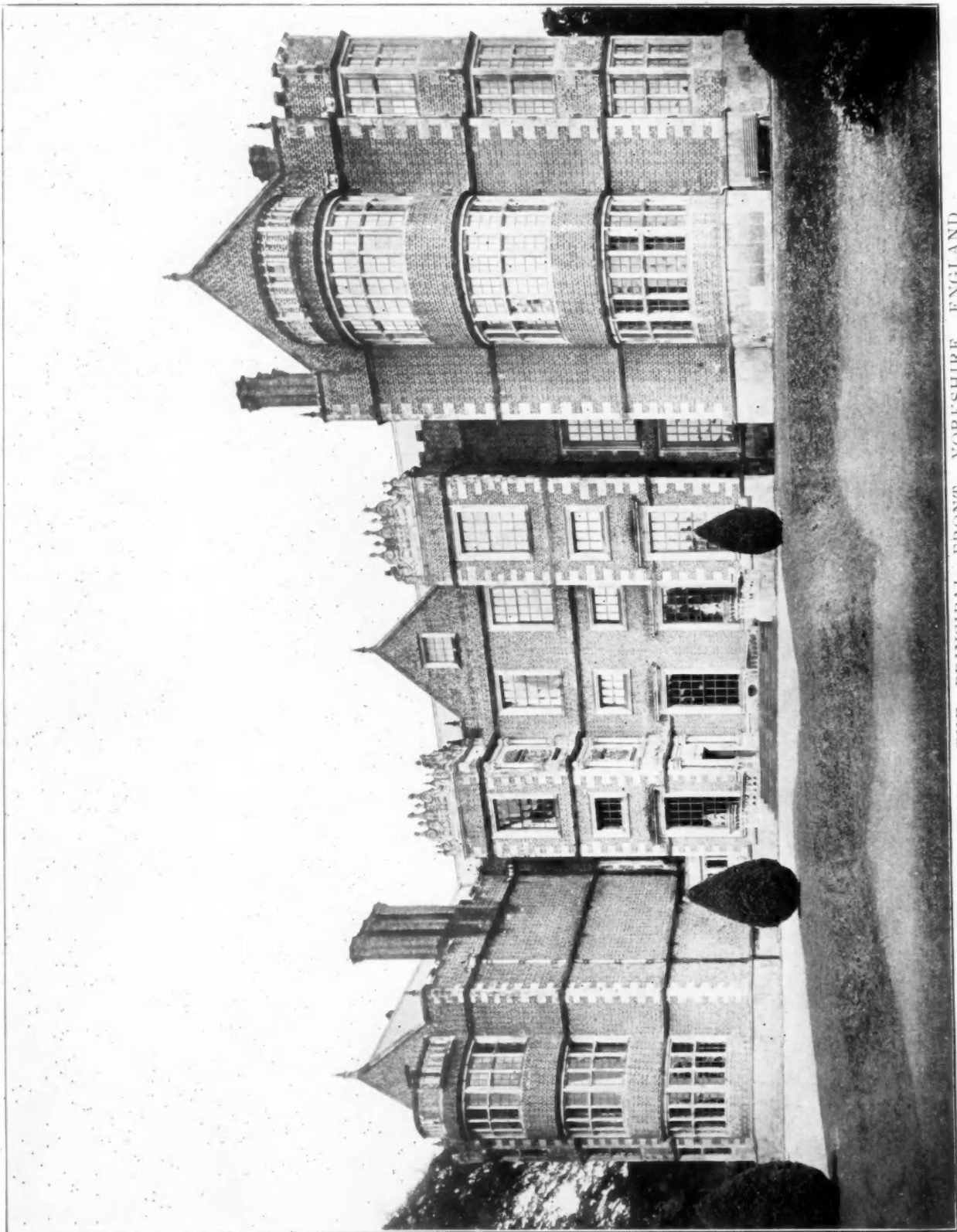
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LETTERPRESS

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BURTON AGNES HALL, THE PRINCIPAL FRONT, YORKSHIRE, ENGLAND.

THE BRICKVILDER

VOL. 16 NO. 3 DEVOTED TO THE INTERESTS OF ARCHITECTURE IN MATERIALS OF CLAY MARCH 1907

✓ Synagogue Architecture.—(Concluded)

BY ARNOLD W. BRUNNER.

IN selecting a style to-day, I believe firmly that we should either go back to the early Judean architecture or follow the general custom that prevailed in building synagogues since the dispersion of the Jews, and conform to the style that is in vogue in the land in which the synagogue is erected.

As far as one may see, the style of the early Judean buildings, if it had been allowed to progress and develop, might not unreasonably have become to-day what we may call modern classic architecture, the type which is being used very generally for churches in America and elsewhere.

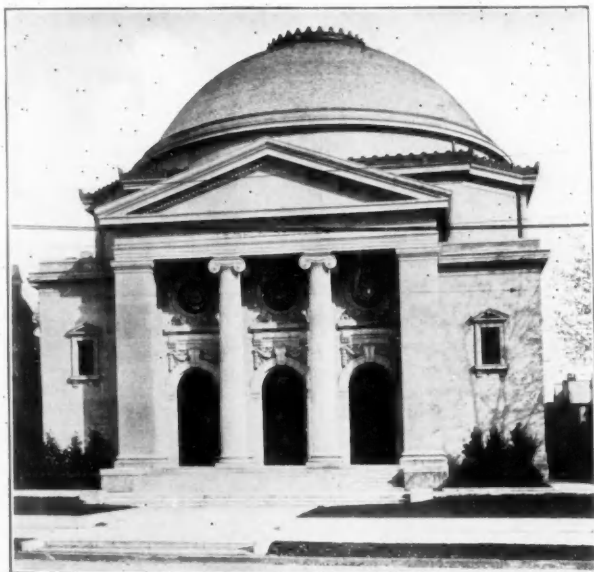
I shall not offer an opinion upon the appropriateness of the Gothic or the classic styles for the modern church. Both have their strong advocates and both are extensively employed. Gothic, however, is unquestionably from the history and its expression not suited to the synagogue, while the classic style is eminently adapted to this purpose.

Some years ago, when what was known as the "Richardson Romanesque" was apparently becoming the expression of American ecclesiastical architecture, it seemed that in a slightly modified form it would be appropriate

for the synagogue. When I built the Temple Beth El in New York I so believed. After Richardson's death, when his methods were not successfully continued by his fol-



TEMPLE ADATH ISRAEL, BOSTON.
C. H. Blackall, Architect.



TEMPLE BETH EL, DETROIT.
Albert Kahn, Architect.

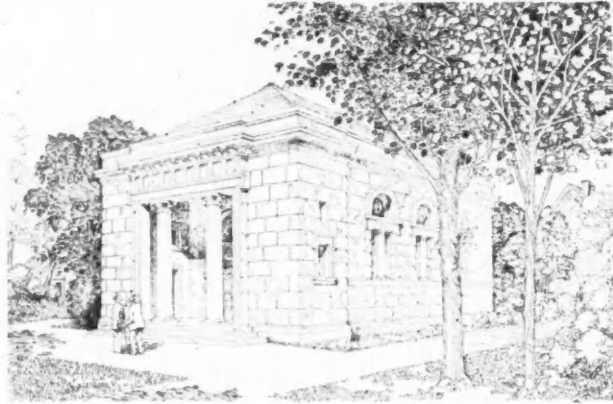
lowers and imitators, the Romanesque practically disappeared and the choice for ecclesiastical buildings now, broadly speaking, lies between the two great styles—Gothic and classic. I am unhesitatingly of the opinion that the latter is the one that is fit and proper for the synagogue in America. With the sanction of antiquity it perpetuates the best traditions of Jewish art and takes up the thread, which was broken by circumstances, of a vigorous and once healthy style. By classic it is not intended to mean only the pure Greek and Roman architecture, as used in Greece and Rome and their colonies, but to include the Renaissance in its various forms of development as opposed to what Rosengarten calls the "Pointed Style."

Recently several synagogues have been designed with much skill and cleverness which not only do not declare their purpose but entirely conceal it. The architects, however capable as they may be, are evidently not familiar with Jewish methods of worship or they could not possibly wish to house modern Jewish congregations in buildings whose architectural treatment indicates the cult of Mohammed or the mysteries of Isis. The Temple in Jerusalem was not a synagogue and the various courts, the "Holy of Holies," the sacrifices and numerous ceremonies belonged to the Temple only. They ended with the Temple and never had place in the synagogues,

which were, and are, only places for instruction and prayer.

The service is extremely simple, and in the orthodox congregations consists only of readings from the scriptures, prayer, singing by a choir and occasionally a sermon. In the modern or "reformed" congregations the sermon is invariably a part of the service and the music of the organ is added. For worship of this sort a building designed in the Moorish or Egyptian style, or one that indicates something mysterious or unusual or "Oriental," is most obviously inappropriate. The very simplicity of the service indicates that simplicity combined with dignity should be the dominant note in the design of the building, which, if it means anything, should indicate the purpose for which it is built, not an imaginary condition of esoteric Eastern worship.

The desire to secure what is vaguely known as an "Oriental" feeling in design may well be understood,



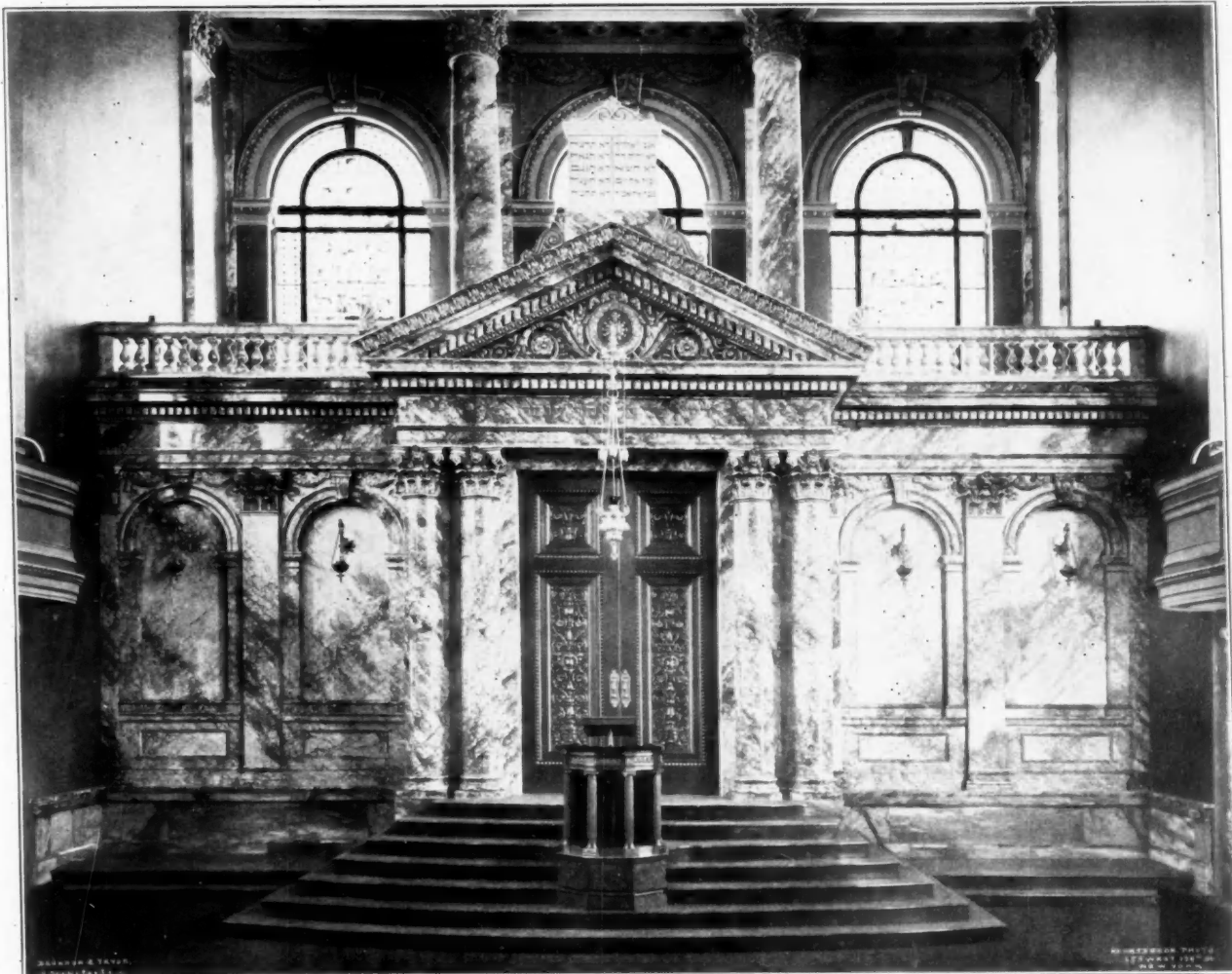
MEMORIAL SYNAGOGUE, PHILADELPHIA.
Arnold W. Brunner, Architect.

but if to secure this elusive quality such anachronisms as symbols and indications of the idolatry of the Egyptians or the creed of Mohammed are the result, it is better to abandon the Eastern touch entirely. Besides, as I have pointed out, there is nothing essentially Oriental in the modern form of Jewish worship, the one for which our architects are called upon to provide buildings. The art of Judea had not sufficiently progressed for us to adopt it as a working basis on which to design larger buildings to-day, and that is the only Eastern art appropriate or even logically possible. The history of the Jewish people is well known, and Bibles are given away and are to be had for the asking, so it appears that if a little thought and research are given to the subject there will be no more unfortunate anachronisms perpetuated in future synagogues.

The responsibilities assumed by a building committee when undertaking the direction of a Jewish house of



CROSS SECTION, TEMPLE MISHKAN ISRAEL, NEW HAVEN, CONN.
Arnold W. Brunner, Architect.

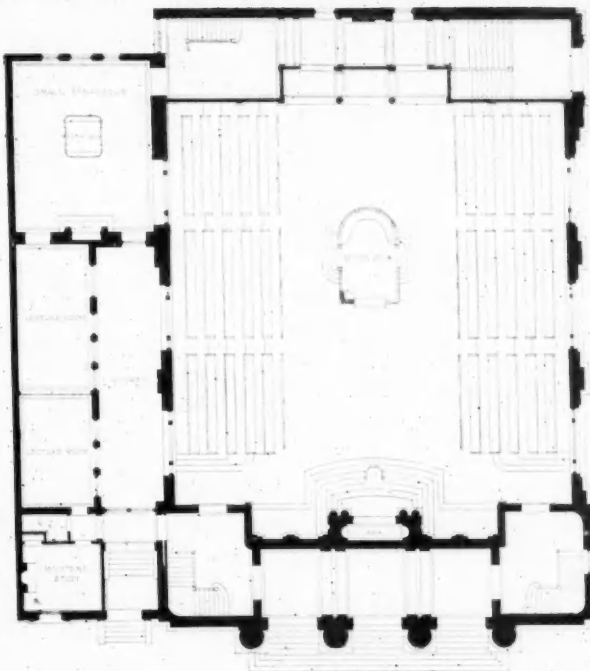


ARK IN SYNAGOGUE SHEARITH ISRAEL, NEW YORK. Brunner & Tryon, Architects.

worship are most grave, and their serious duties should be fully realized at the outset of the work.

The building which they are to call into existence will represent those worshipping in it, but to the general, unthinking public it is apt to be accepted as an indication of the entire Jewish religion. As the "apparel oft proclaims the man," so the church always proclaims the congregation. The mute eloquence of the great monuments of the world is universally recognized, but the voices of the lesser ones, too, are unmistakable and full of meaning. The synagogue, both in its façade and its plan, should state the truth, the simplicity of the creed and the dignity of the service that it is built to perpetuate.

To accomplish this, severity

MAIN FLOOR PLAN.
TEMPLE SHEARITH ISRAEL, NEW YORK.

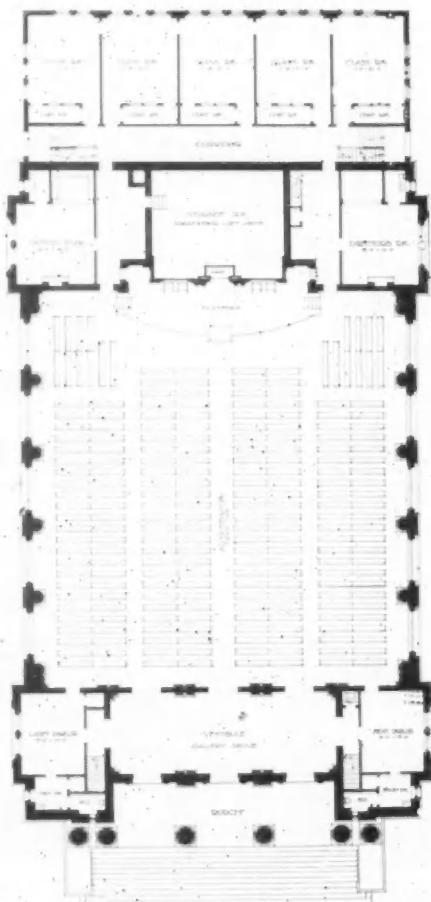
and simplicity of design, harmony of proportion, proper and worthy materials are all equally essential. The necessity of excellent design need not be insisted upon, but the importance of dignified material to produce a dignified result is not always recognized. Nothing can be more disturbing in a place of worship than the feeling of a lack of permanence and stability, which imitations and tawdry decorations and flimsy materials produce.

Ornament, when used, must be well studied and fit its position. "Ornamented construction, not constructed ornament," an old architectural truism, is here especially to be insisted upon. Color, the great harmonizing factor of an interior, must be rich and quiet, and the entire scheme

should be in accord and one part of the design blend perfectly with another.

A well-proportioned interior constructed of noble materials, almost without decoration, will produce an effect of grandeur and become a permanent monument of beauty and devotion which no amount of decoration or trivial design can secure. Stateliness without ostentation should be the aim of the architect who can well take his inspiration from the great cathedrals with their stone piers and columns supporting the vaulted roofs. The success of the buildings acknowledged to be the greatest in the world is in no way conditional upon carving or ornamentation, and depends almost entirely upon the proportion of the parts and the dignity of the material of which they are built. It has been well said that the "secret of great art is great repose."

There is but little symbolism permitted in synagogue building. The Star of David, the Lion of Judah, the lily, pomegranate, etc., almost exhaust the list.



MAIN FLOOR PLAN.
TEMPLE FOR K. K. BENE ISRAEL, CINCINNATI.
Tietig & Lee, Architects.

The tables of the law, carved in marble, are invariably placed over the ark, which generally has a Hebrew inscription on a panel over its doors. In the interesting collection of objects of Jewish art in the Musée Cluny in Paris one finds few distinctively Jewish forms, symbols or ornaments. If it were not for the legends and inscriptions on them, many of these objects, charming in themselves, could not be distinguished from others of the same period in general use, and have intrinsically no Jewish characteristics.

Hebrew in-



TEMPLE SHEARITH ISRAEL AHAVIS ACHIN, CINCINNATI, O.

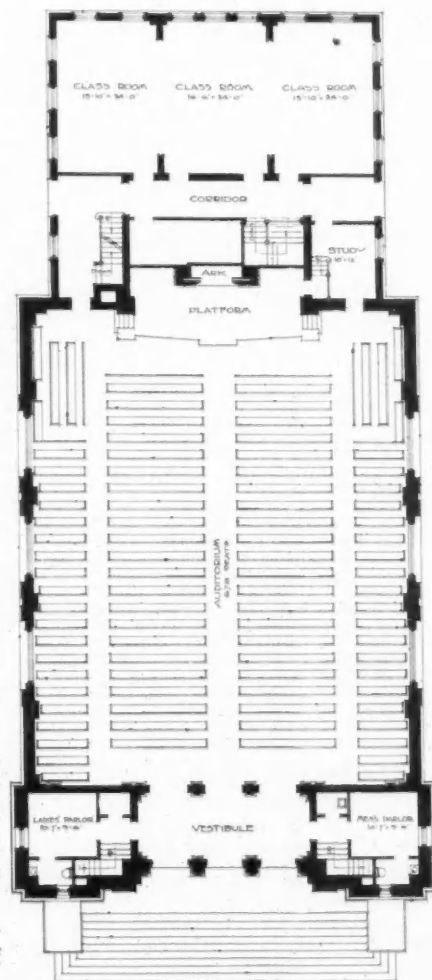
scriptions are sparingly employed, but they lend themselves admirably to ornamental purposes, the script being very decorative in its character. It can be used to fill panels or be incorporated in ornament in many ways, and in the absence of other Jewish symbols, will assist the designer to secure the atmosphere of the synagogue in a perfectly legitimate manner.

Stained glass windows are most desirable; representations of the human figure have never been encouraged. The glass, like the rest of the interior, must imperatively be considered a part of the general

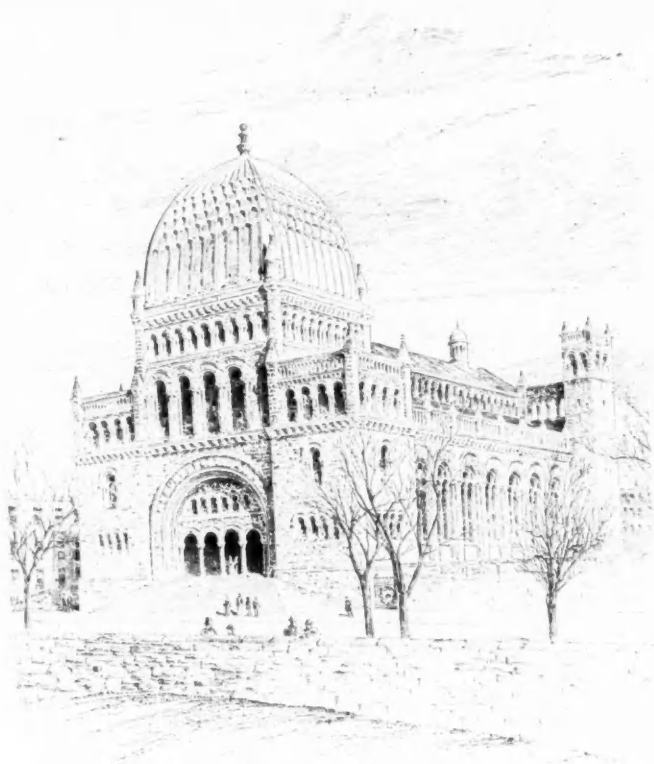
scheme, and to secure the best results the architect who designs the building should always be consulted when memorial windows, tablets, lamps, etc., are added in the future, otherwise the original scheme may be sadly disturbed.

Generally speaking, the problem that confronts the architect who would design a synagogue to-day is very similar to that presented to the designer of the average Protestant church. The main requirements of housing and seating the congregation, the facilities for ingress and egress, the light, ventilation, the necessary acoustic qualities, are the same. There are variations in plan which depend on whether the congregation is "Orthodox" or "Reformed," as the two broad divisions of the church are called.

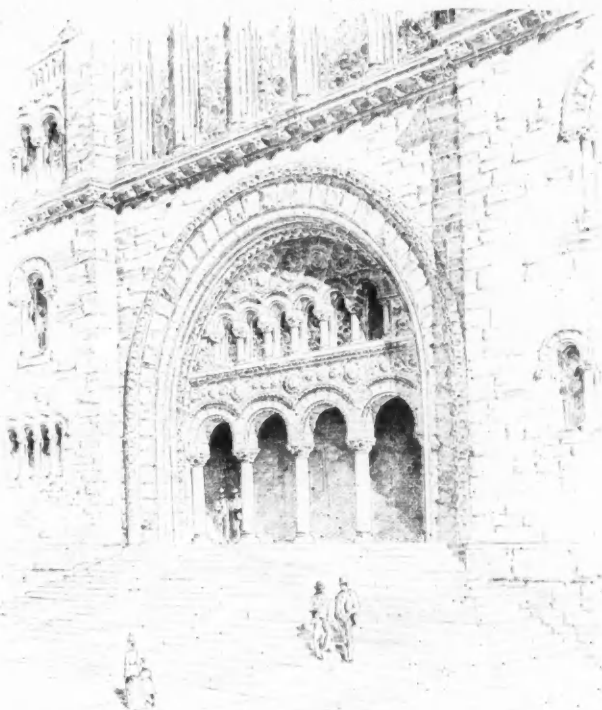
From the architect's point of view the difference consists entirely in the position of the reading desk and



MAIN FLOOR PLAN.
TEMPLE FOR SHEARITH ISRAEL AHAVIS ACHIN, CINCINNATI.
Tietig & Lee, Architects.



WEST FRONT, TEMPLE BETH EL, NEW YORK.



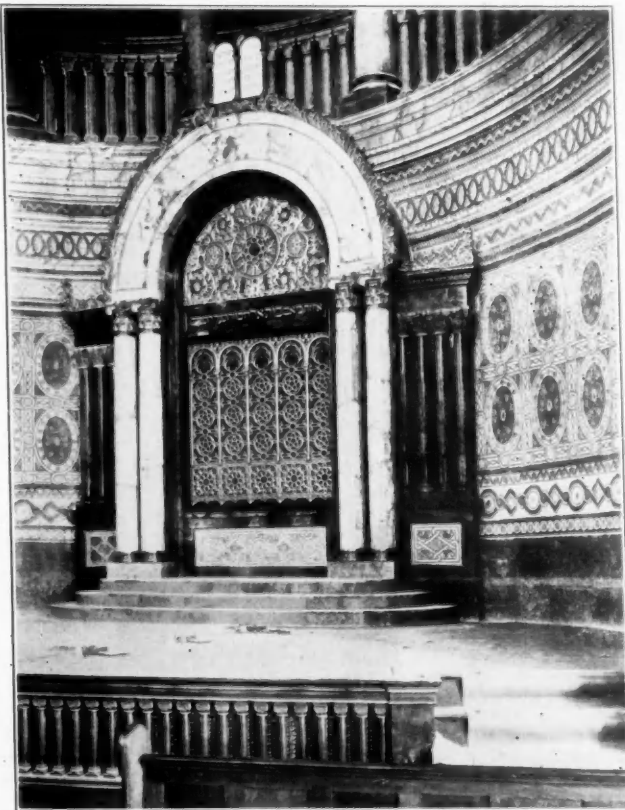
MAIN ENTRANCE, TEMPLE BETH EL, NEW YORK.

Brunner & Tryon, Architects.

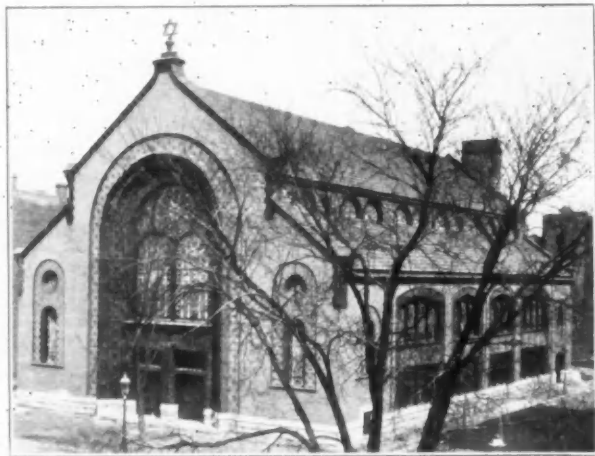
the arrangement of the seats. If the traditional method is used the reading desk is placed approximately in the center of the main floor on a raised platform approached by steps, and contains seats for at least three or four people besides the minister, who stands at the desk. The desk itself is large enough for one of the scrolls of the law to be placed on it. These scrolls are the Five Books of Moses, engrossed on parchment and rolled on two sticks and protected by an ornamental cover. A desk three feet by four feet is ample to contain one sufficiently unrolled for reading and more ample dimensions are usual. Being the central feature of the building it is customary to treat the platform containing the desk with balustrades, bronze lamps, carved panels, or other ornamental devices to emphasize or to beautify it. The position of the ark is at the end of the building furthest from the main entrance, and it is also elevated and approached by steps, and in

orthodox synagogues so situated that the worshippers when facing it look towards the east, but reformed con-

gregations do not insist upon this. An open space is thus left between the ark and the reading desk, which is always unoccupied, the only seats being placed parallel to the walls and back of the desk. When the lesson of the day is to be read, the minister leaves the central platform, goes to the ark, which he opens, takes out a scroll (of which there are generally several) and returns to the desk, the scroll is then opened and placed on the desk, a portion is read and the scroll is replaced. This impressive service necessitates an arrangement in which comparatively few seats are possible in even a large building. Accordingly, in reformed congregations, the reading desk is placed directly in front of the ark, the platform being somewhat enlarged to accommodate it, and the pulpit is either in front of the reading desk or at one side. This plan is



ARK IN TEMPLE BETH EL, NEW YORK.



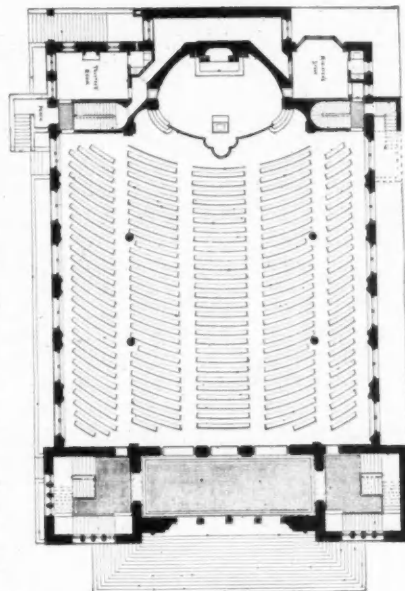
SYNAGOGUE, LA SALLE AVENUE, CHICAGO.
S. S. Beman, Architect.

now becoming general and nearly always adopted. It has the advantage of consolidating the service without materially changing it, and allows the entire floor space to be devoted to seats which are arranged like pews in a church, sometimes straight and parallel to the ark, or sometimes curved. The most satisfactory results are obtained by curved lines of pews with the floor rising gently toward the back rows. In orthodox congregations the sexes are divided and the galleries entirely used for seats for women, but in the majority of congregations to-day this distinction is no longer made, the men and women sitting

together in pews, so that the existence of galleries depends upon the number of sitting required.

A simple means of ingress and egress must be provided but the arrangement of stairs and vestibules is a question of individual choice. A large vestibule in the center, with smaller ones at the ends, offers the advantage of permitting entrance through two doors, thus making an air lock and keeping out the noise of the street, the

center doors being only used for exit. If the building is very long, exits should be placed at both ends. There should be rooms either side of the platform for the minister and the choir, and it is preferable to reach them by a separate entrance. The organ is sometimes placed above the ark or on the gallery opposite to it, or arranged to fill the spaces on either side in accordance with the general design of the interior.



PLAN, TEMPLE BETH EL, NEW YORK.

Rooms for the choir are needed, and it is most desirable to provide a place for the singers where their voices may be heard but where they will not be visible to the congregation. The solemnity and impressiveness of the service are much enhanced when the choir is not seen.

The practical requirements of the ark are few. It is virtually a bookcase containing the scrolls of the law, and as these are parchment rolls they are placed vertically on little shelves, the space required depending upon the number of scrolls owned by the congregation.

The doors of the ark may be hinged, but the best arrangement is to make them slide on rollers so that they may be readily opened. They are sometimes covered by a curtain and in any case they should be of dignified



PLAN, TEMPLE BETH EL, DETROIT.



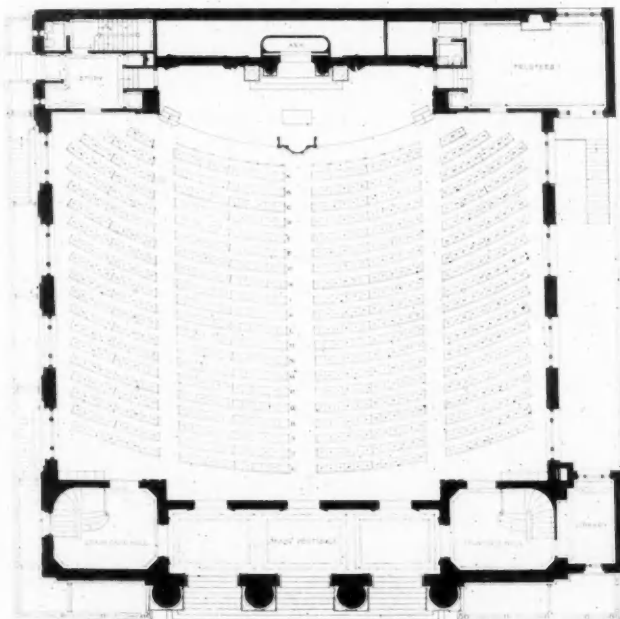
SYNAGOGUE AT RICHMOND, VA.
Noland & Baskerville, Architects.



ARK IN TEMPLE ISRAEL, HARLEM, NEW YORK.

design and rich in material. Seven-branched candlesticks are appropriate at the sides or in front of the ark, and besides the perpetual light, memorial lamps are often hung in numbers and are extremely decorative.

The reading desk is sometimes used as a pulpit, but in modern synagogues a separate pulpit, from which the

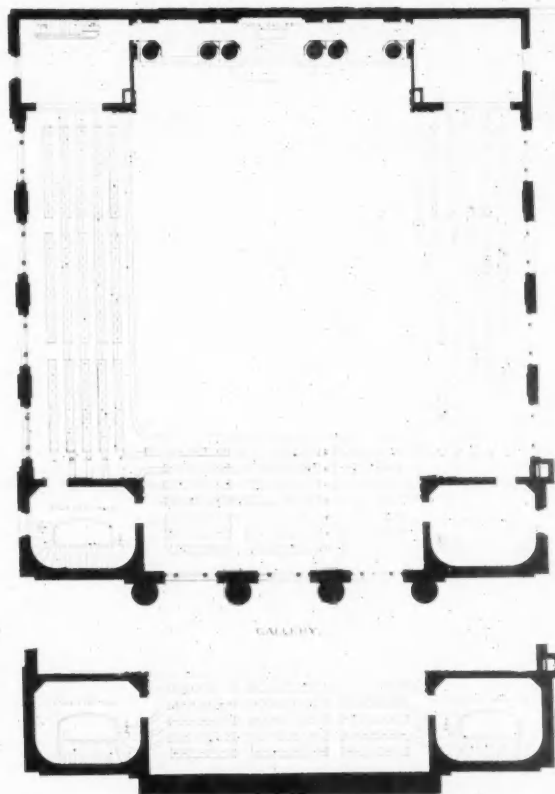


MAIN FLOOR PLAN.
TEMPLE ISRAEL, HARLEM, NEW YORK.
Arnold W. Brunner, Architect.

sermon is preached, is generally erected. There is no recognized position for it, the favorite one being immediately in front of the reading desk, or it may be placed on one side and at such a height as to enable the speaker to be easily seen and heard by the entire congregation.

Sabbath schools in connection with synagogues are always considered a matter of great importance, and a large proportion of floor space is required for them. A special building, if conditions allow it, is always advisable, but sliding screens and other methods of making the school temporarily a part of the main building are never successful.

In crowded cities the Sabbath School is generally placed in the basement, the main auditorium floor being



UPPER GALLERY.
TEMPLE ISRAEL, HARLEM, NEW YORK.

sufficiently raised to allow sufficient light to enter the windows of the schoolrooms.

There must be a general well-lighted assembly-room, numerous classrooms, teachers' rooms, retiring rooms, etc., and a minister's study and a room for the trustees or elders of the congregation are always necessary.

The setting of the synagogue is of paramount importance. Like any other building it needs an appropriate position, and if crowded in the middle of a block it loses its dignity and importance. Whenever possible there should be some space around it, and if it can be set back from the street so that a little grass and a few flowers and trees are allowed to grow and a railing provided to separate it from the sidewalk, the general effect will be worth the small cost of the ground required for this purpose.

As a rule an attempt is made to erect a building on a site that is too small for it, and while in cities it is a natural temptation on account of the cost of property, both the practical and artistic results suffer greatly from this economy.



SYNAGOGUE, 70TH STREET AND CENTRAL PARK,
WEST, NEW YORK.

Arnold W. Brunner, Architect.

In New York the high value of desirable lots has cramped the design of the majority of the synagogues. Vestibules and stairs are seldom sufficiently generous. Sunday school rooms are habitually placed in the basement instead of housing the school in a separate structure, and frequently the courts at the sides are not large enough to insure good light and ventilation. The interiors also gave evidence of the same desire to economize, and the aisles and spaces in front and at the rear of the seats are reduced to their smallest dimension. Even the pews are sometimes placed too near each other for comfort.

Many of the best exterior indicate the lack of ground, and façades are flattened, approaches are dwarfed, entrances too small and steps too steep. The beauty and impressiveness of a synagogue depend largely upon proper approaches, and the fitness of the building for its position is a most important consideration.

THE FATIGUE OF CONCRETE.

IN a paper on "The Fatigue of Concrete," published in the *Proceedings* of the American Society of Civil Engineers, Mr. J. S. Van Ornum says:

"The adhesive strength of concrete to steel, low in value at best, is undoubtedly severely tried by repeated application and relief of load, and the consequent successive production and relief of the various internal stresses which tax so severely this essential and vital factor of reinforced-concrete design and construction. Passing without comment the acknowledged fact that scale or thick rust will seriously impair the adhesion, it may be said that numerous critical examinations plainly indicate that any rust on the metal (while completely absorbed by the

concrete and so effectively preventing further corrosion) did materially lessen the normal adhesive power of the concrete; the bond was often found lacking opposite the rust discolorations on the concrete, while remaining firm on each side where rust had been entirely absent; and, where the adhesive bond was destroyed in the middle portion of the beam, this destruction habitually terminated in a discolored section, apparently indicating the encountering of an increased adhesive resistance at the cleaner portions of the steel.

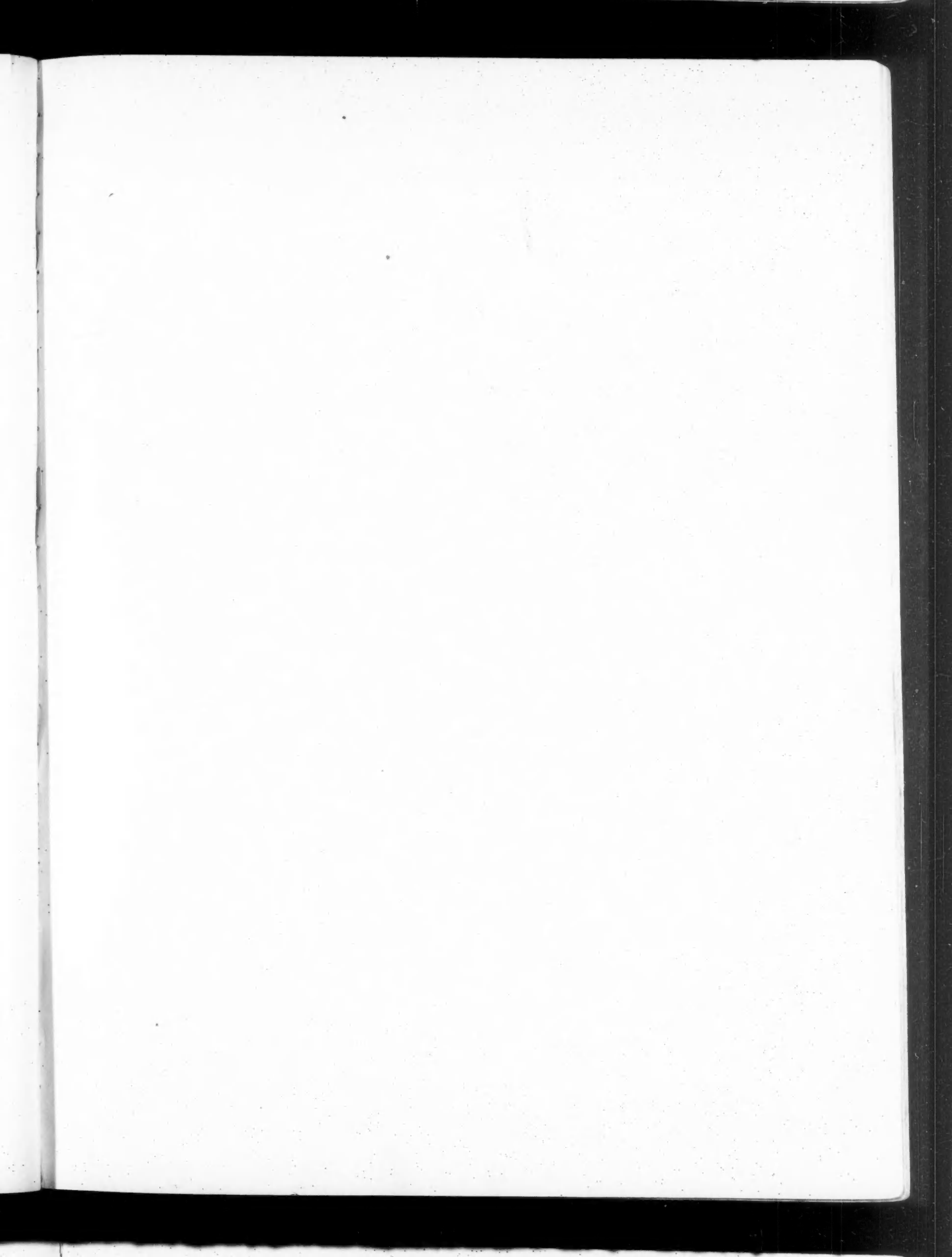
"Another fact that has escaped deserved attention is the probability that a material excess of water used in mixing the concrete apparently lessens its adhesive power. It is realized that a moderately wet mixture is desirable, in order to prevent voids in the concrete as ordinarily placed, and especially to secure sufficient plasticity to insure a

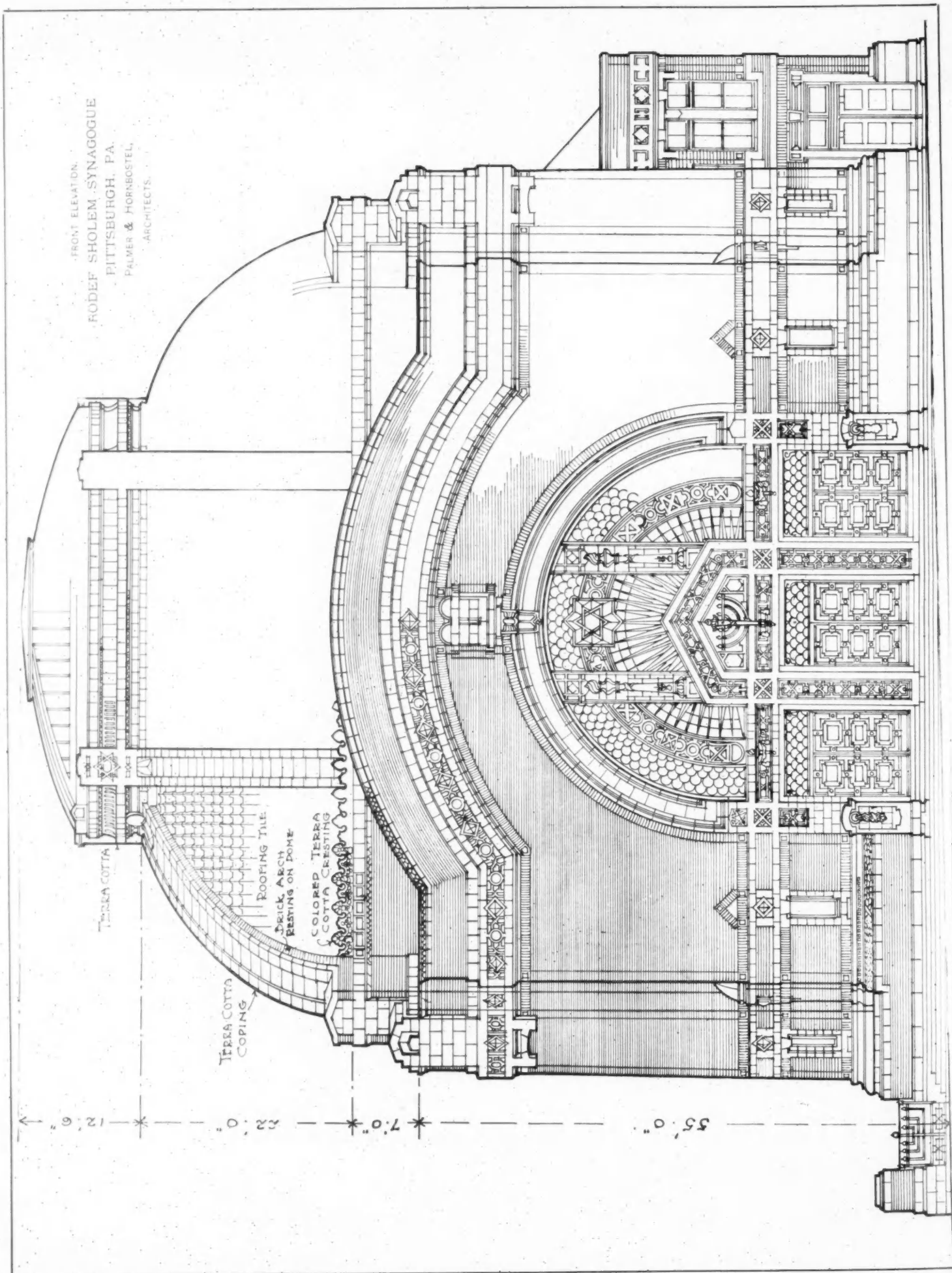


INTERIOR OF SYNAGOGUE, 70TH STREET AND CENTRAL
PARK, WEST, NEW YORK.

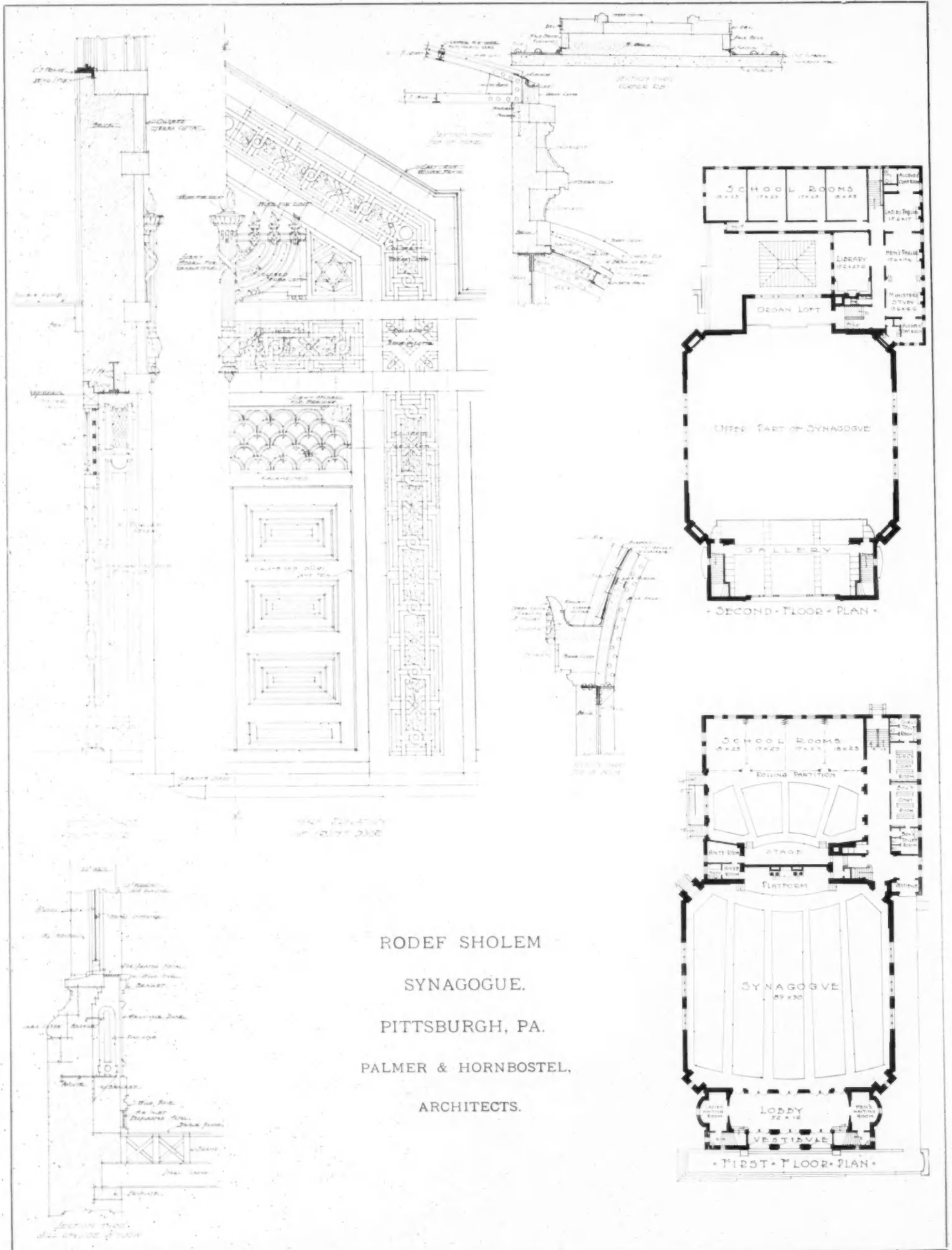
Looking toward Ark.

complete filling of the space around and below the network of reinforcing steel; but there seems to be a real danger that the reaction against dry concrete is being carried too far. An excessively wet concrete not only contains numerous globules of water, which, when absorbed, leave the concrete porous, but these, also, especially weaken the adhesion of the concrete to the steel, because there is a tendency for such water globules to seek the surface of the reinforcement, particularly on the under side. The weakening of the bond from this cause was evident in certain beams in which the adhesion was noticeably weak, the water cavities being apparent at the bottom and sides of the steel bars."









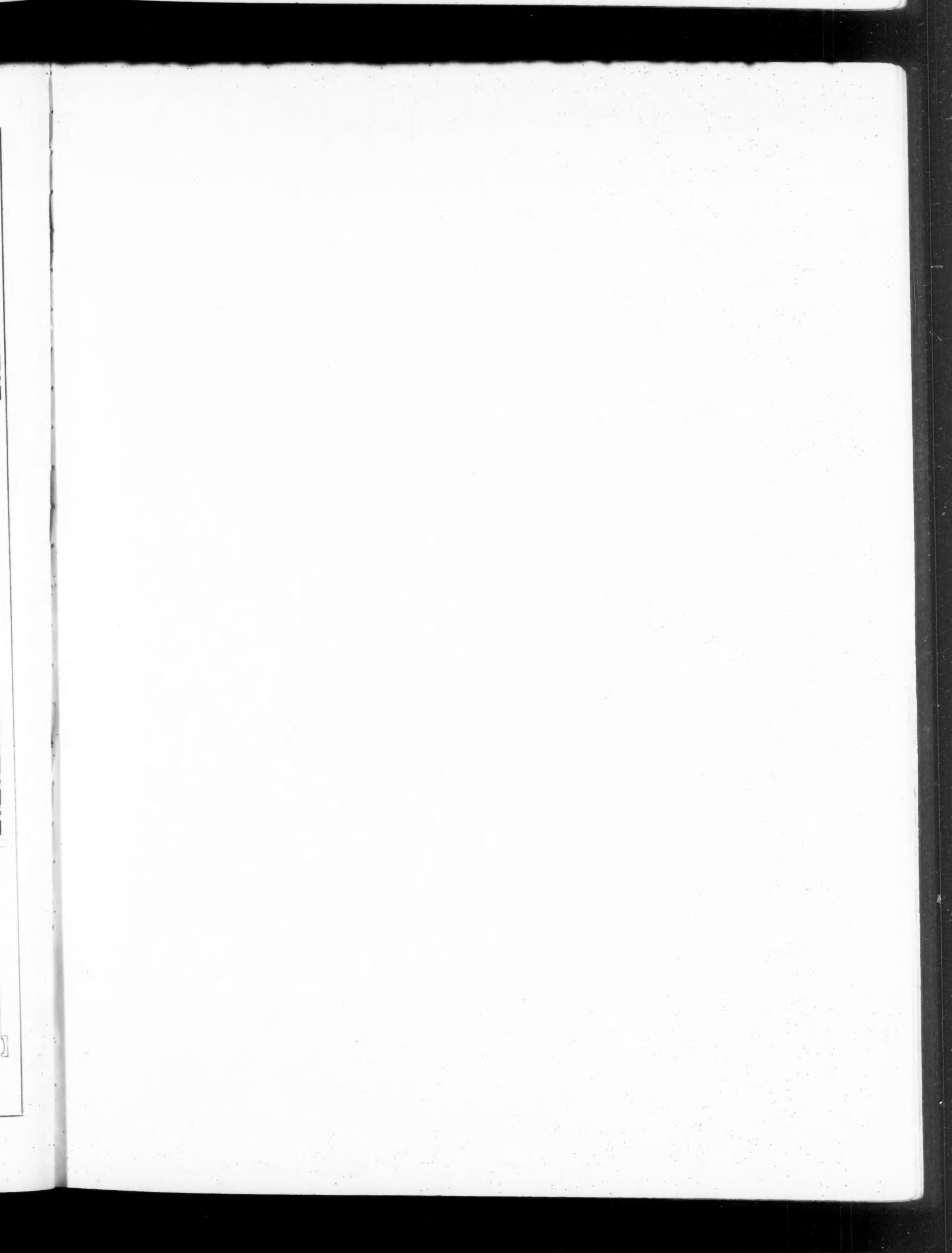
RODEF SHOLEM

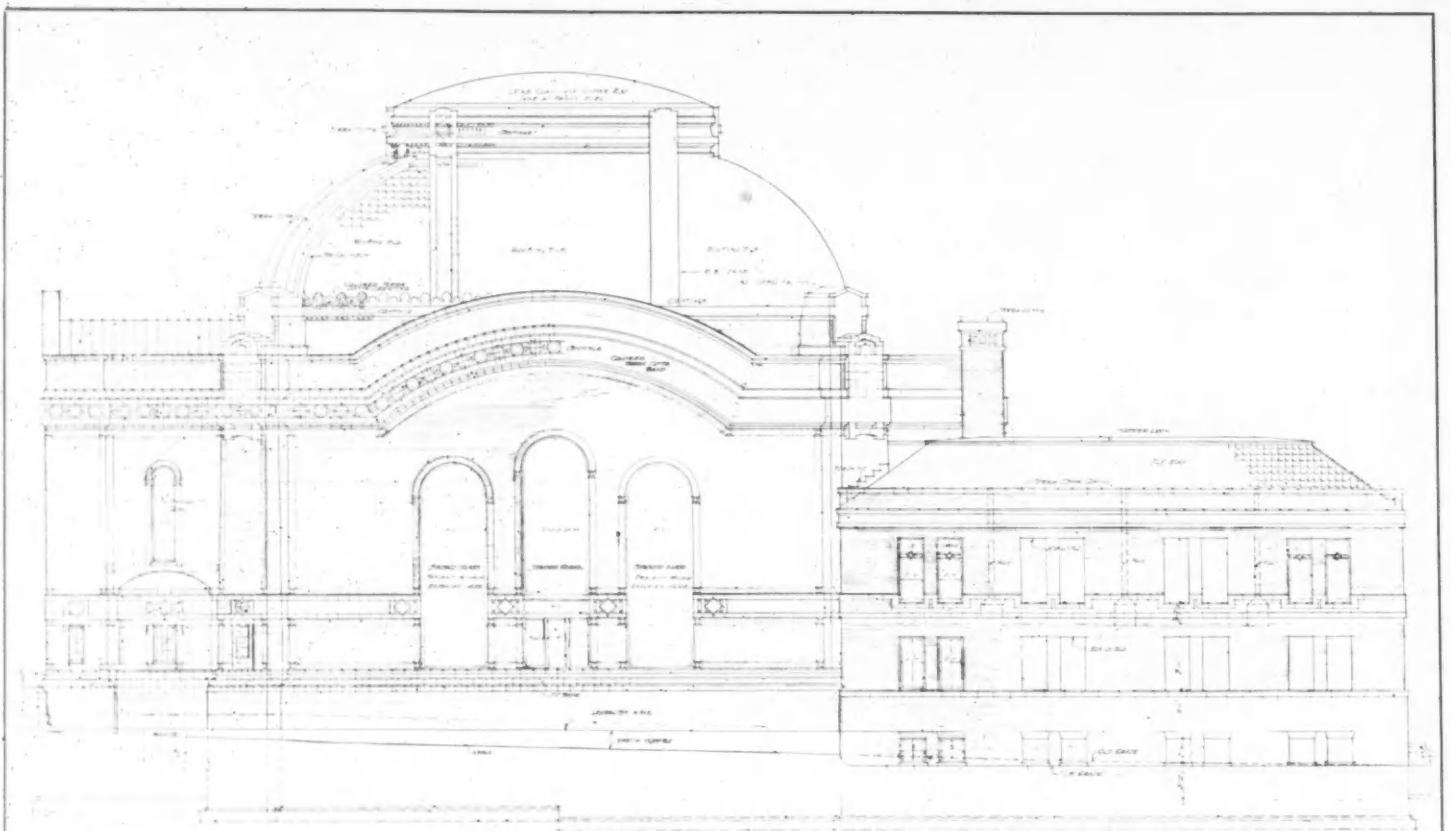
SYNAGOGUE.

PITTSBURGH, PA.

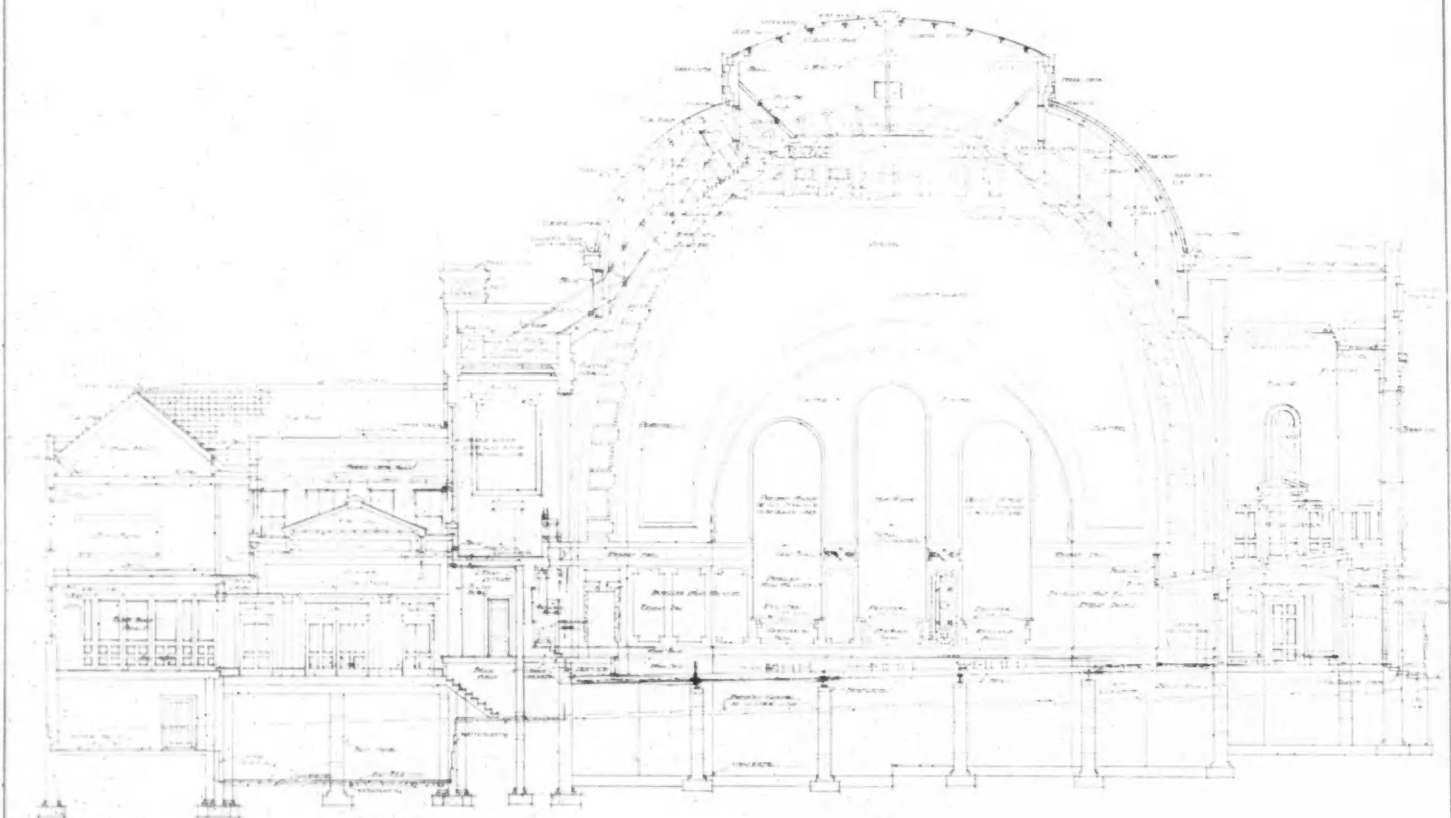
PALMER & HORNBOSTEL,

ARCHITECTS.





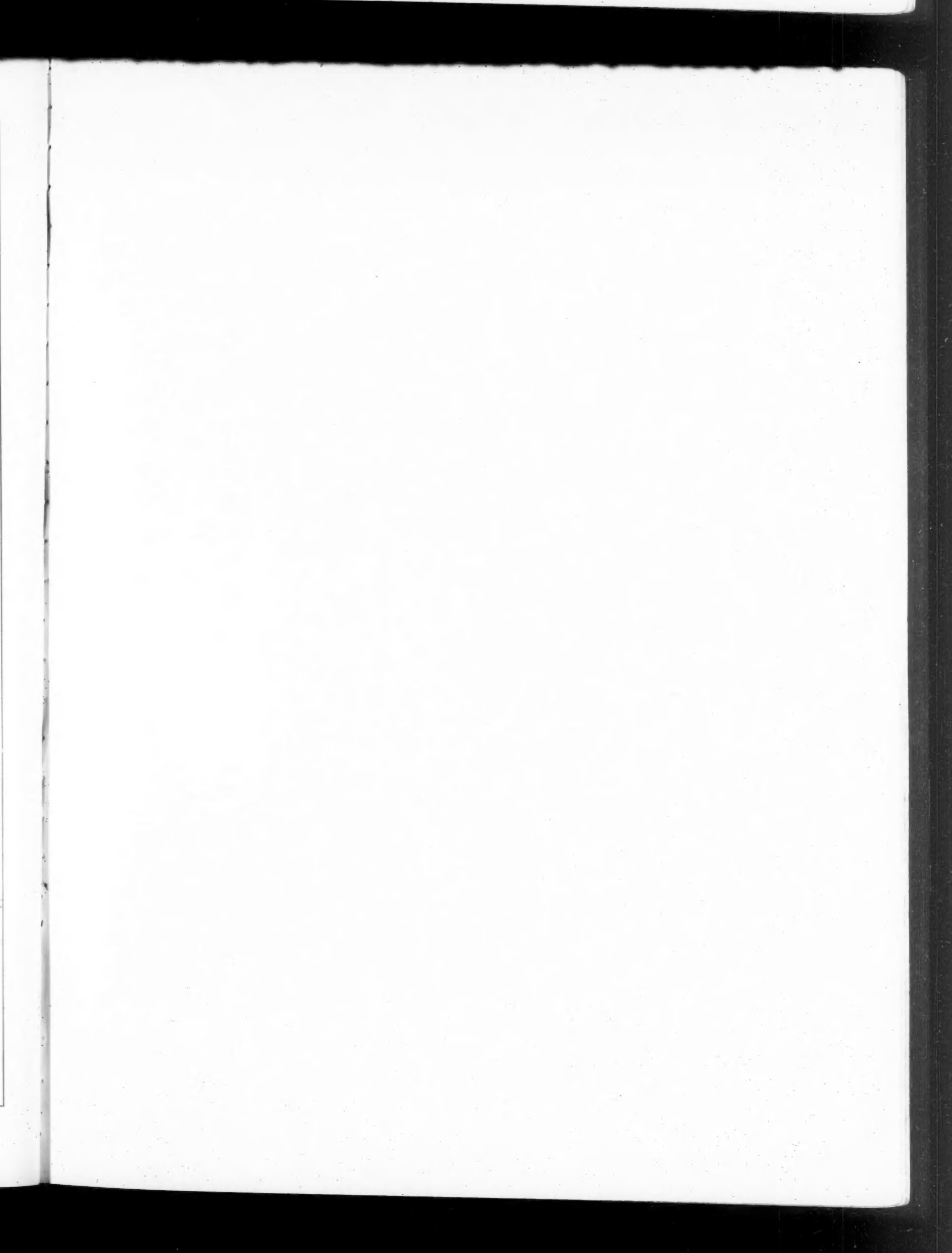
SIDE ELEVATION.

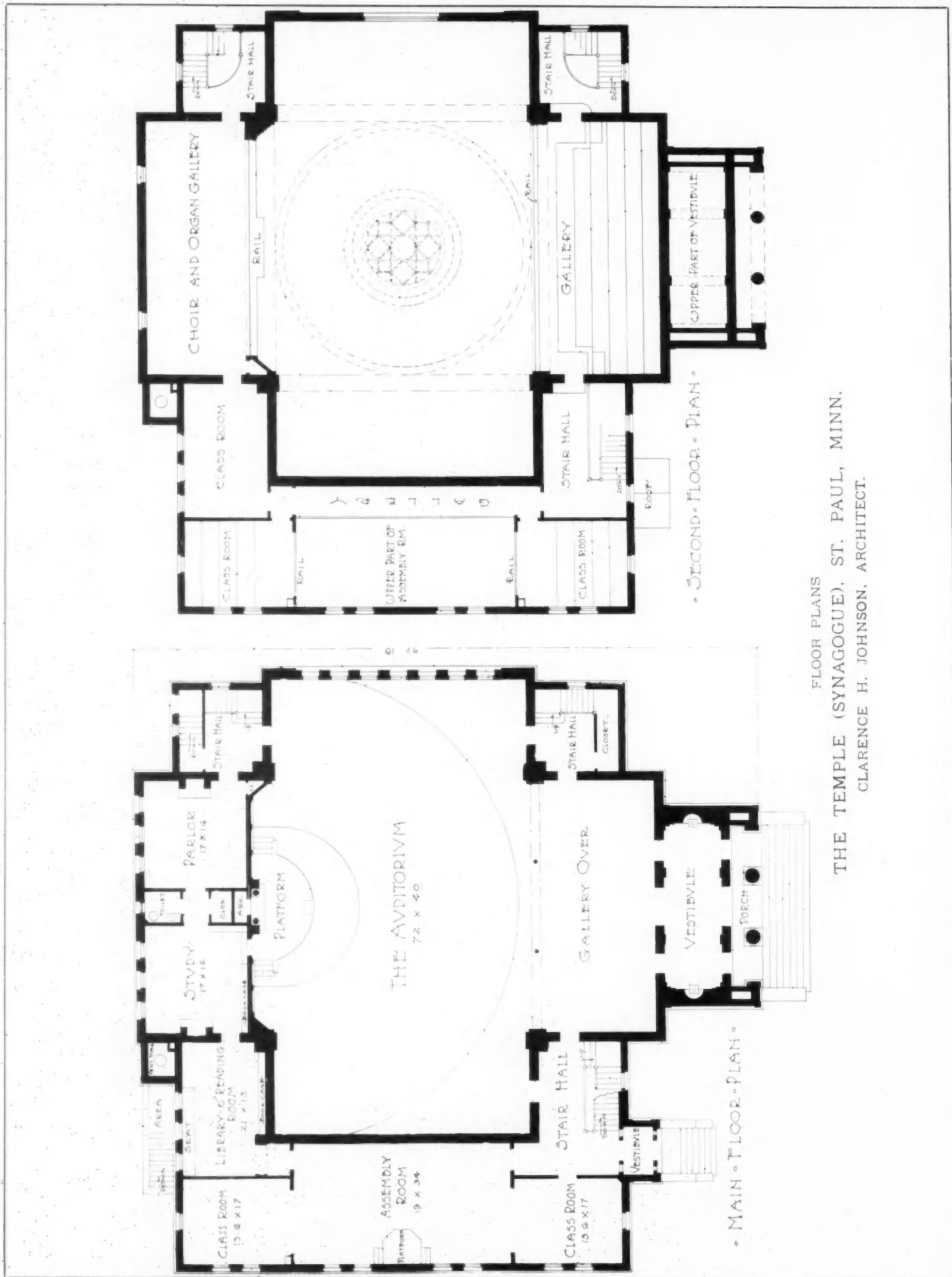


LONGITUDINAL SECTION.

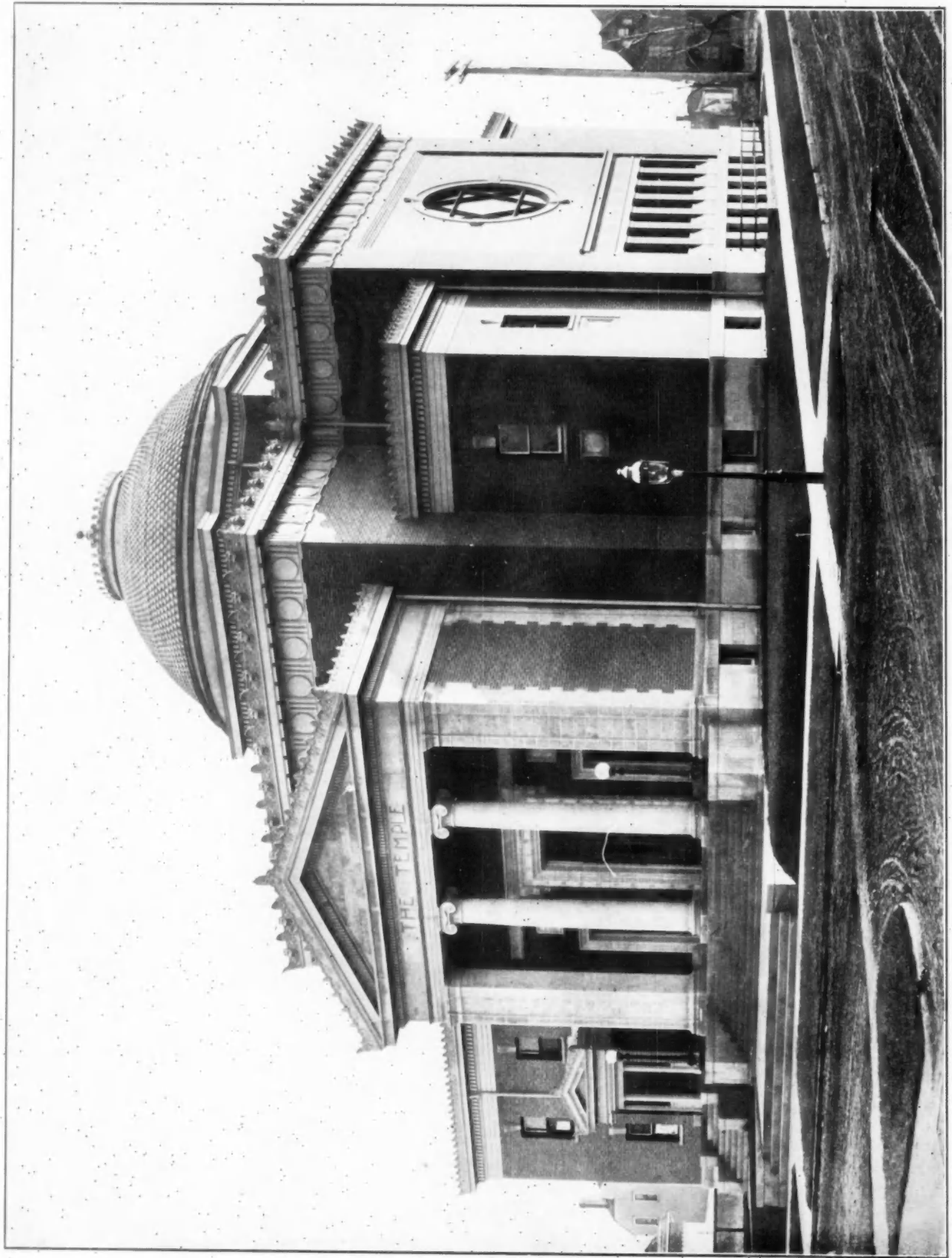
RODEF SHOLEM SYNAGOGUE, PITTSBURGH, PA.

PALMER & HORNPOSTEL, ARCHITECTS.





FLOOR PLANS
THE TEMPLE (SYNAGOGUE), ST. PAUL, MINN.
CLARENCE H. JOHNSON, ARCHITECT.

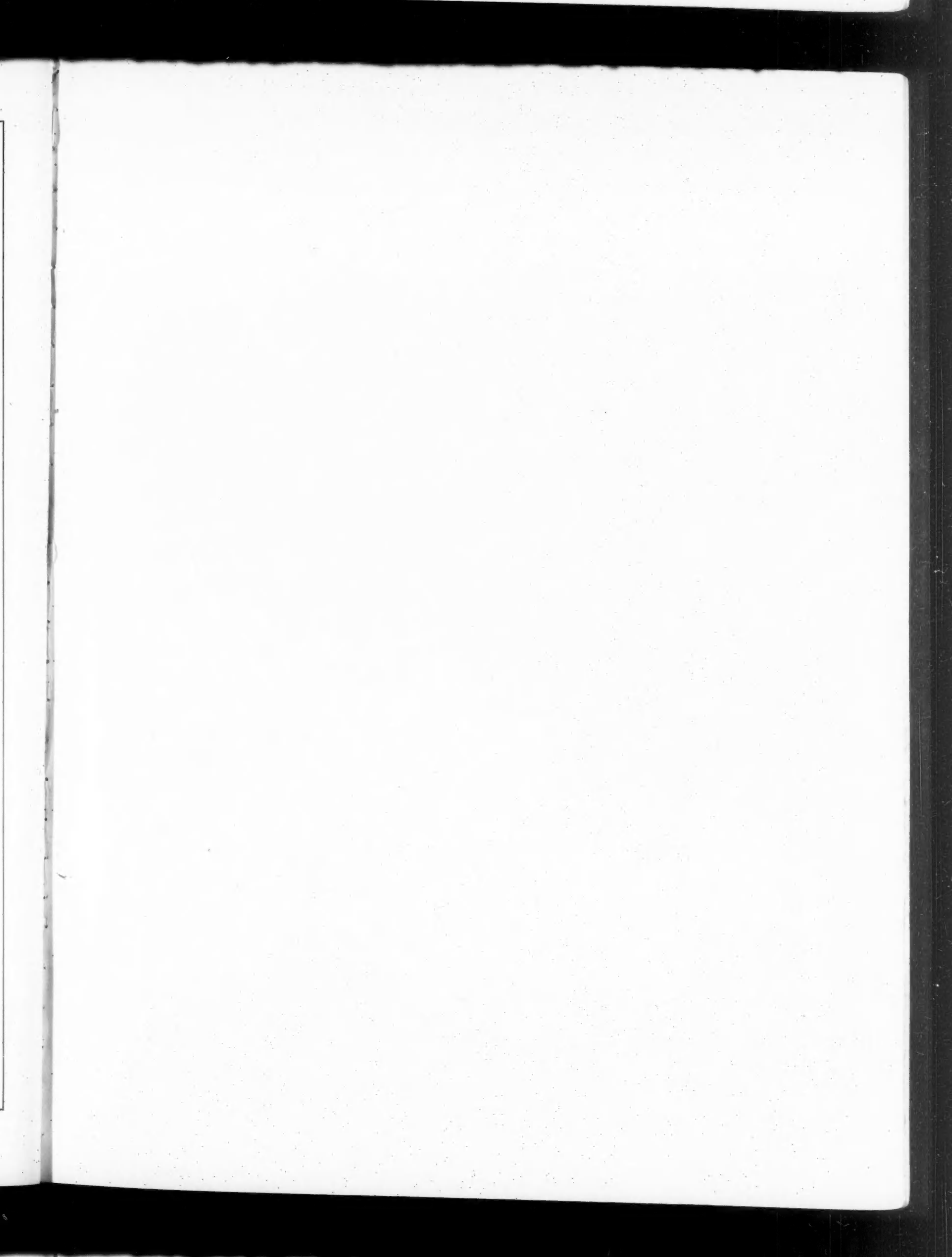


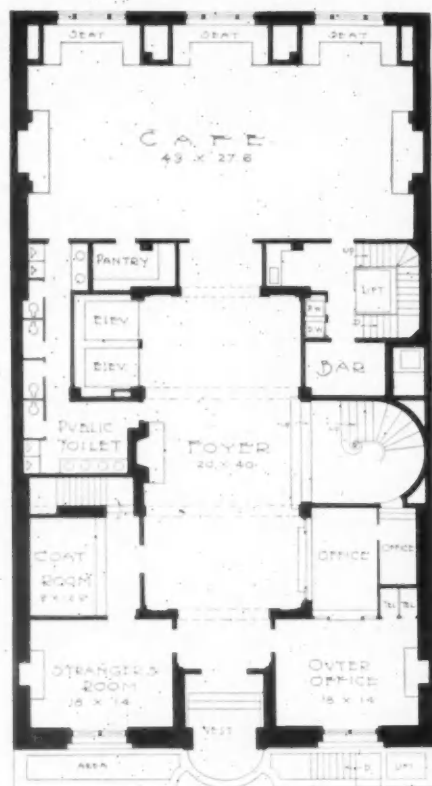
THE TEMPLE (SYNAGOGUE), ST. PAUL, MINN.
CLARENCE H. JOHNSON, ARCHITECT.



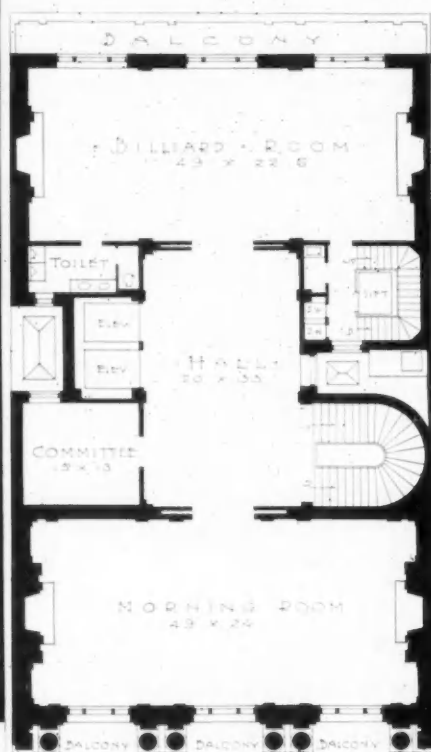


TEMPLE (SYNAGOGUE) K. K. BENE ISRAEL, CINCINNATI, OHIO.
TETIG & LEE, ARCHITECTS

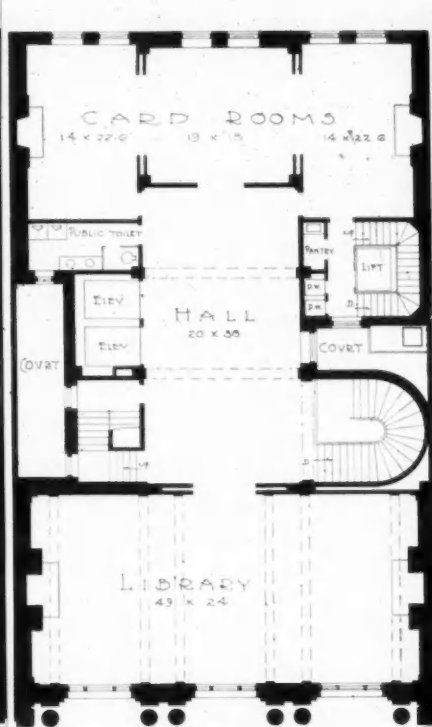




FIRST FLOOR PLAN



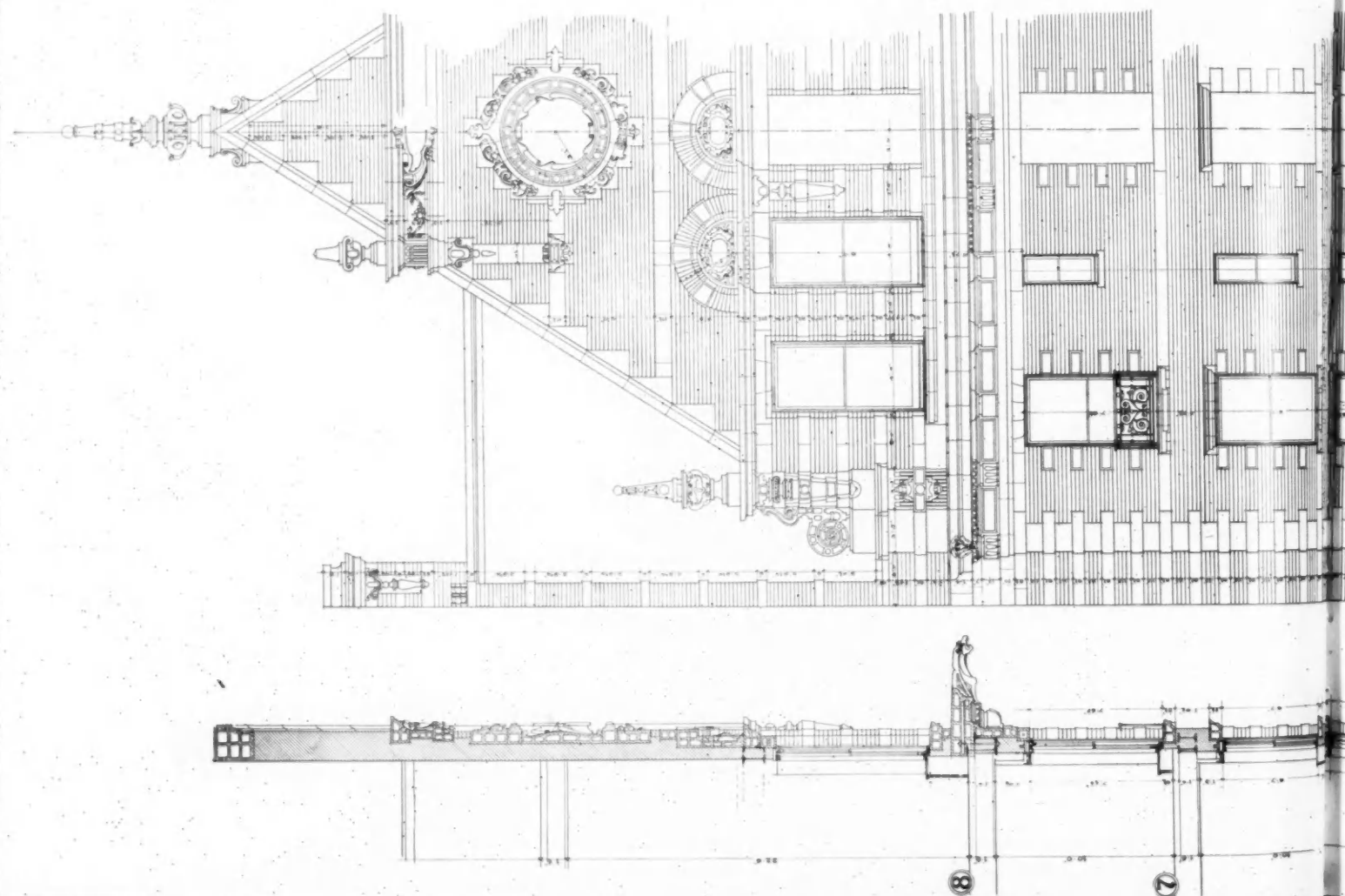
SECOND FLOOR PLAN

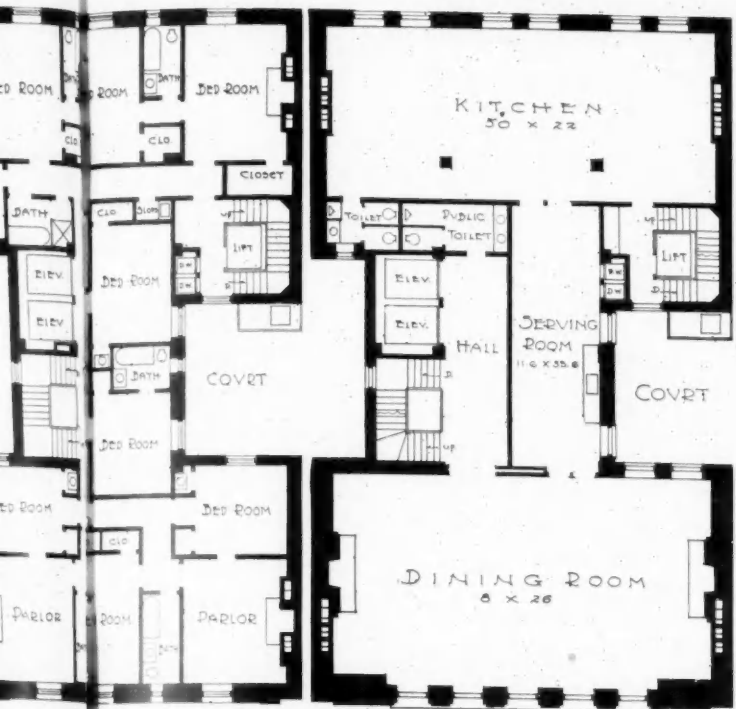


THIRD FLOOR PLAN

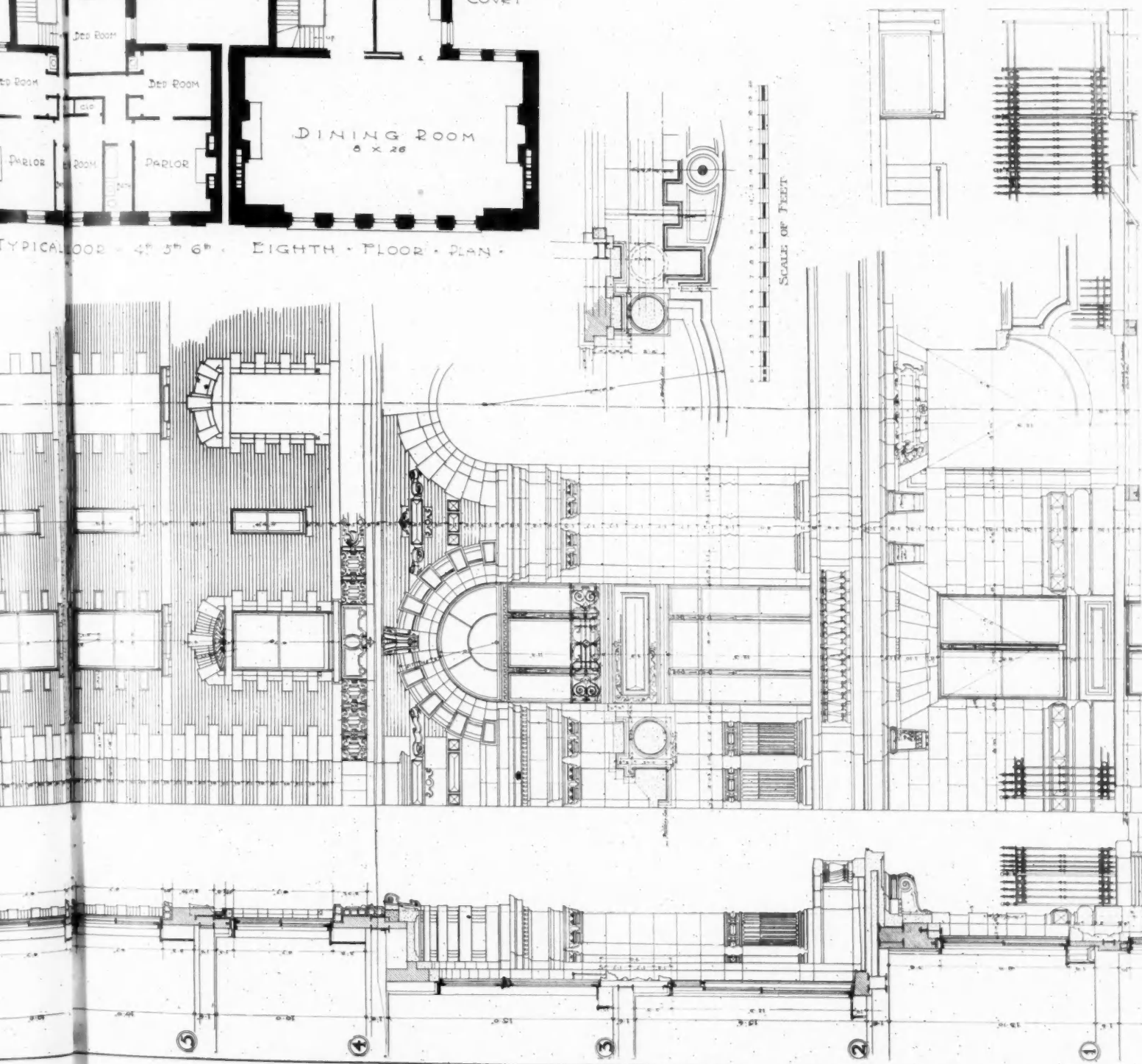


TYPICAL SECTION





TYPICAL FLOOR - 4th 5th 6th - EIGHTH - FLOOR - PLAN -

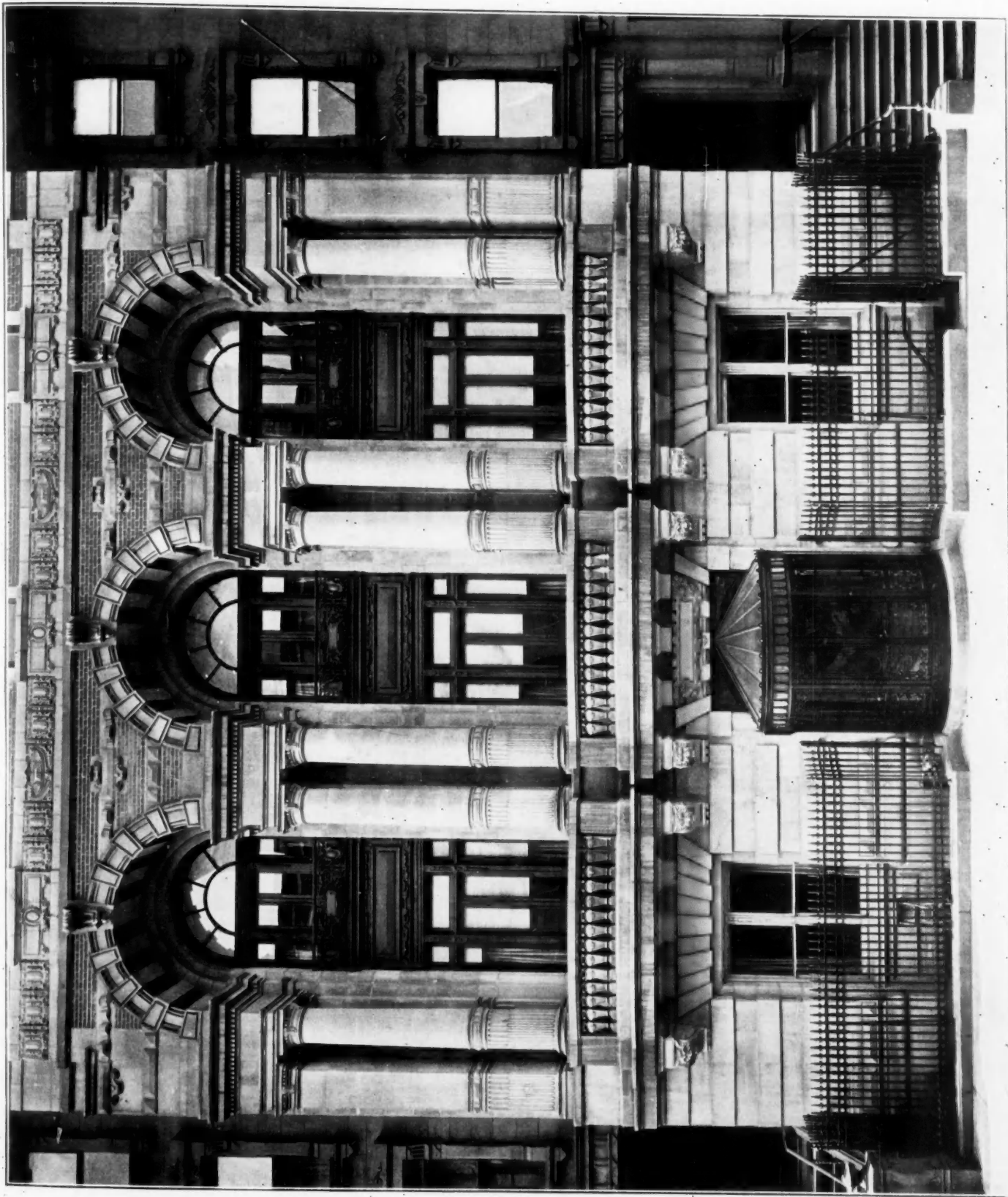


DETAIL OF FRONT OF NEW YORK CLUB, WEST FORTIETH STREET, NEW YORK.
H. J. HARDENBERG, ARCHT.

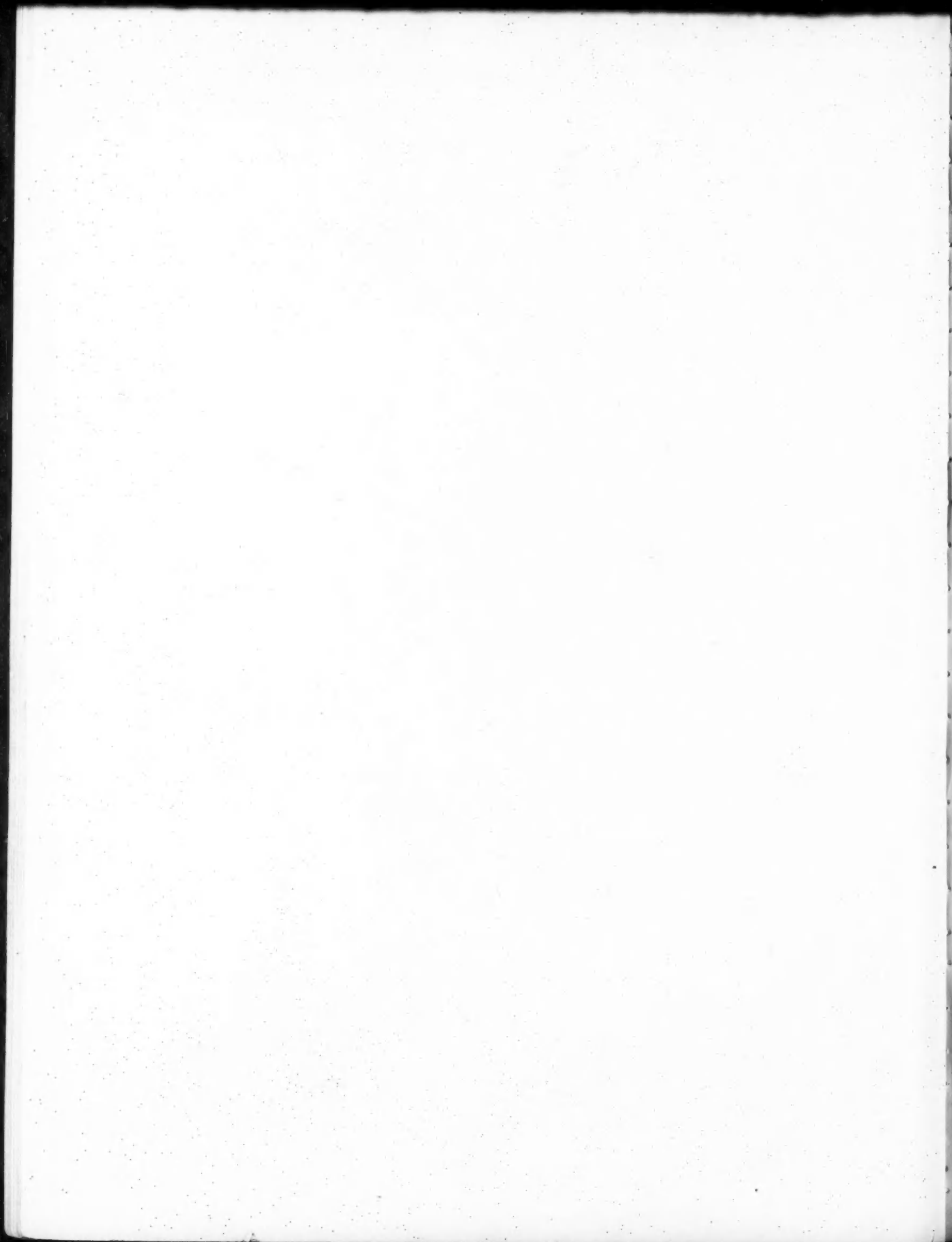


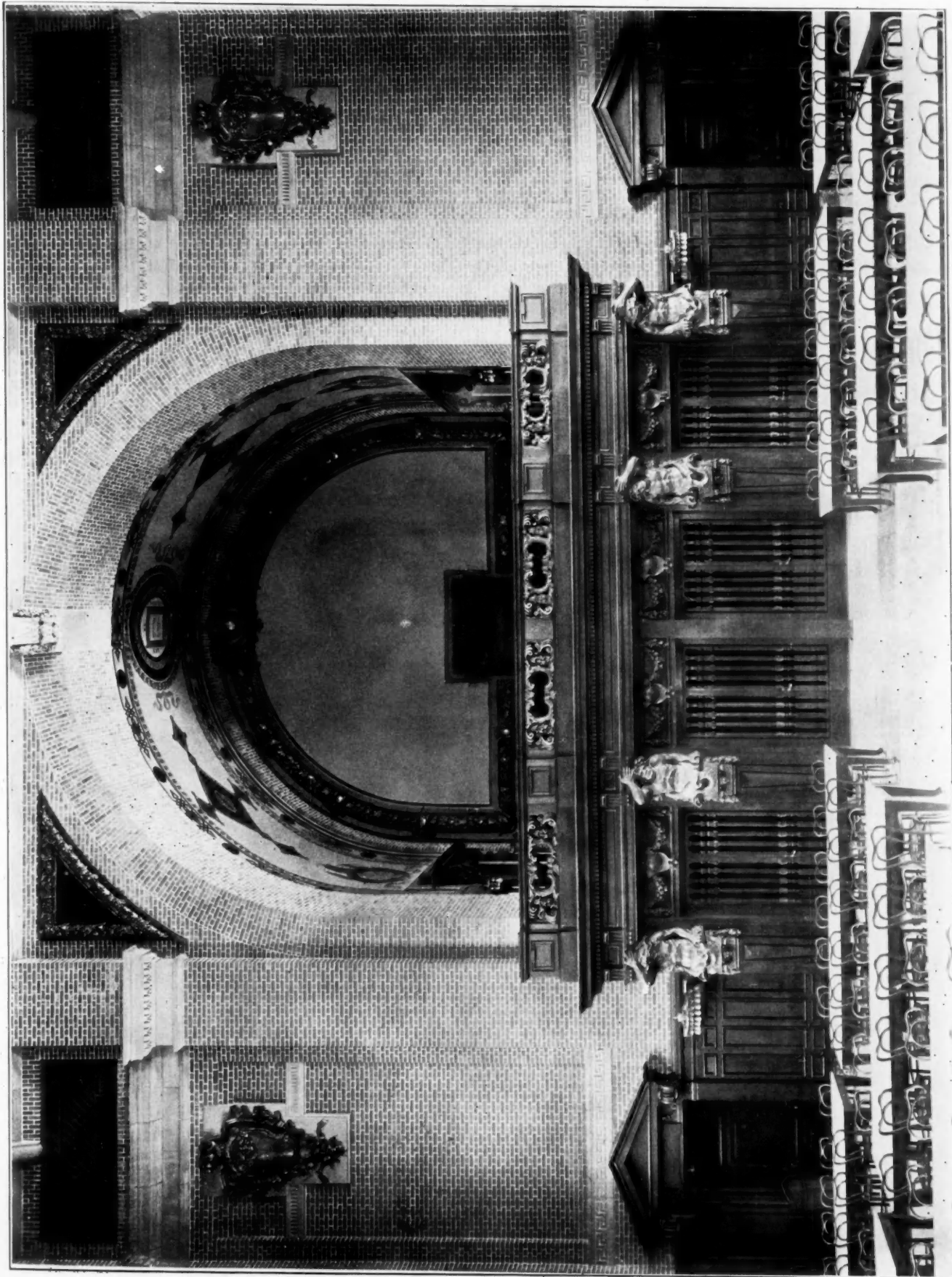
NEW YORK CLUB, WEST FORTIETH STREET, NEW YORK.

H. J. HARDENBERGH, ARCHITECT

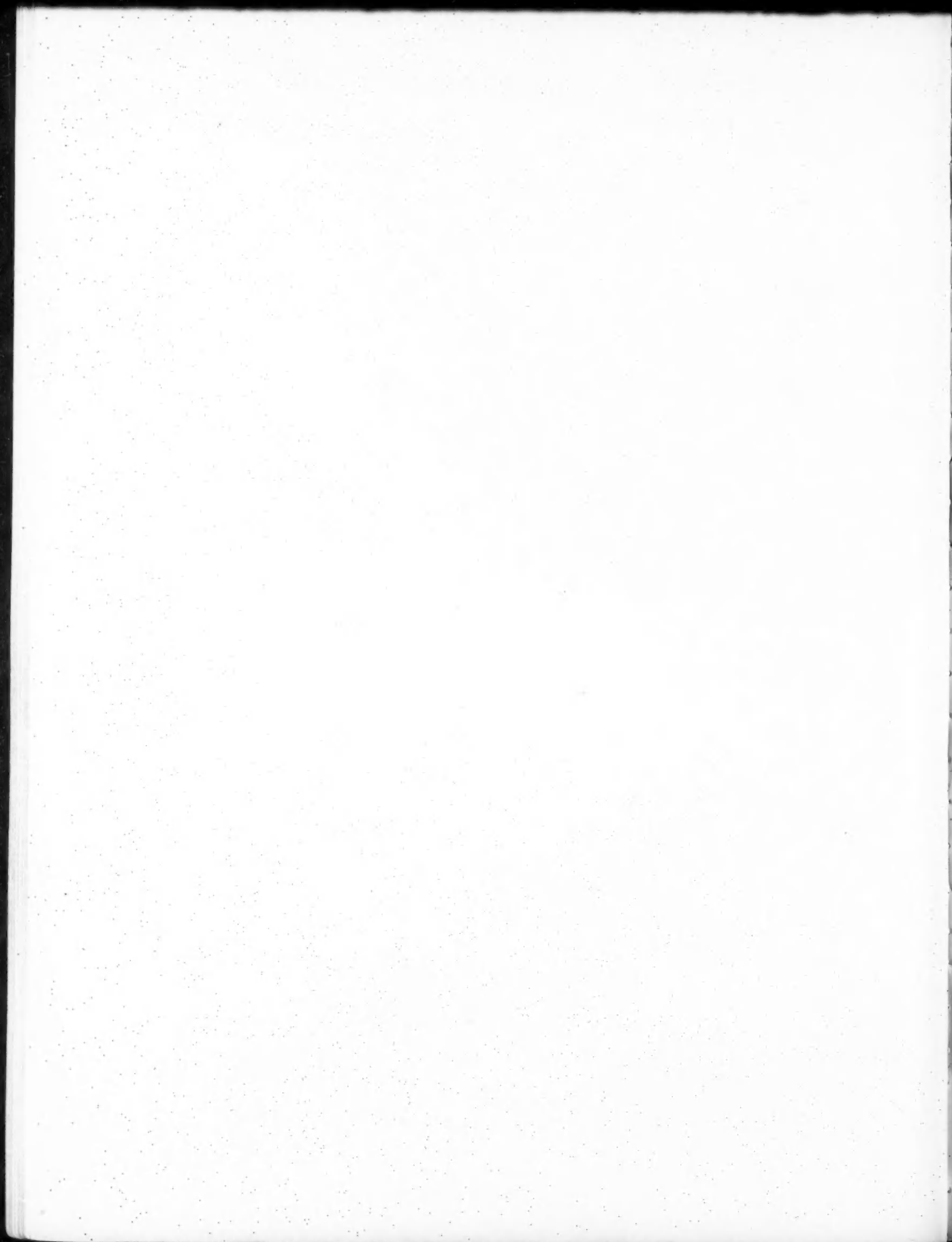


DETAIL OF LOWER STORY.
NEW YORK CLUB WEST FORTIETH STREET NEW YORK.
H. J. HARDENBERG, ARCHT.





INTERIOR OF DINING-ROOM, MEMORIAL HALL, YALE UNIVERSITY.
CARRÈRE & HASTINGS, ARCHITECTS.

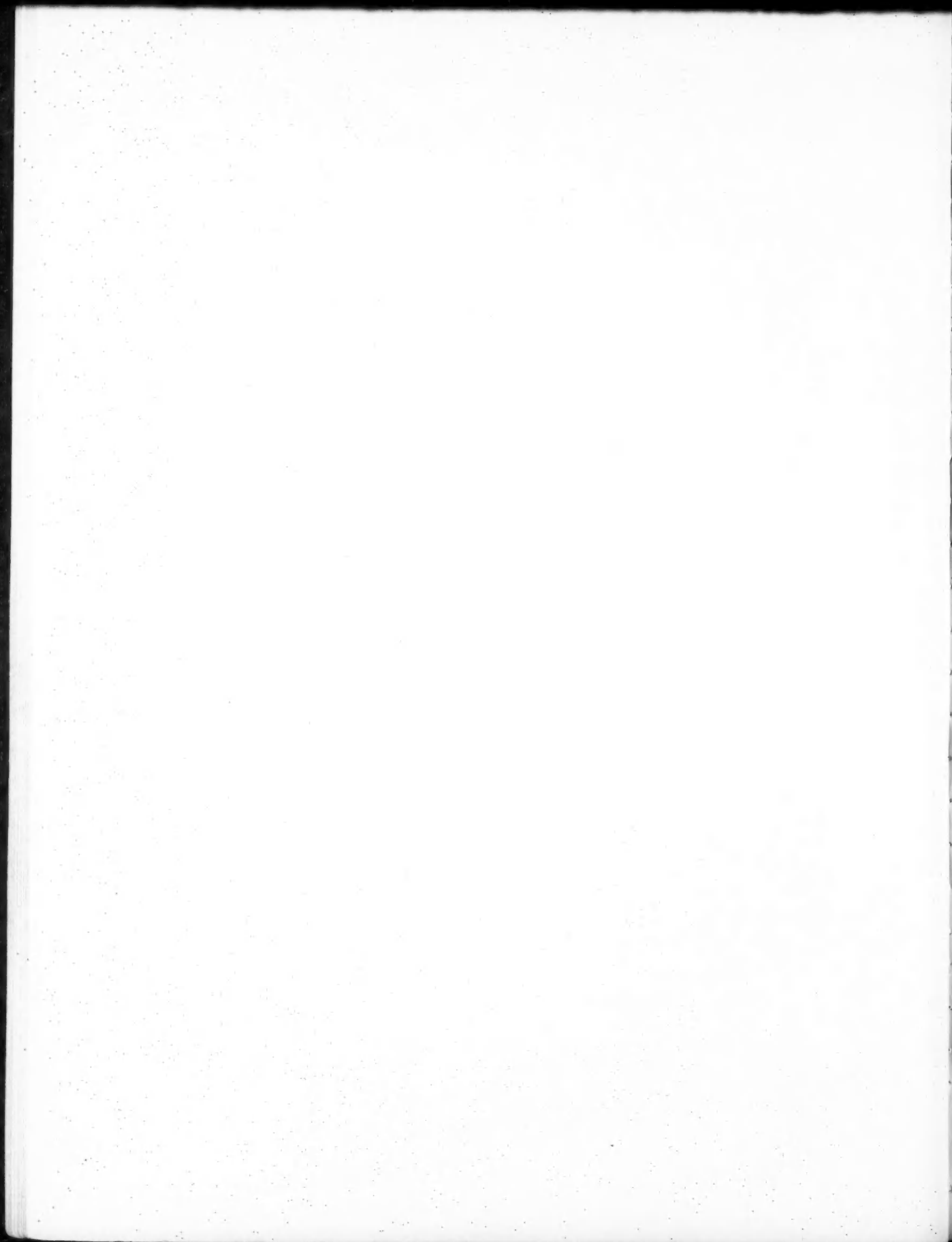


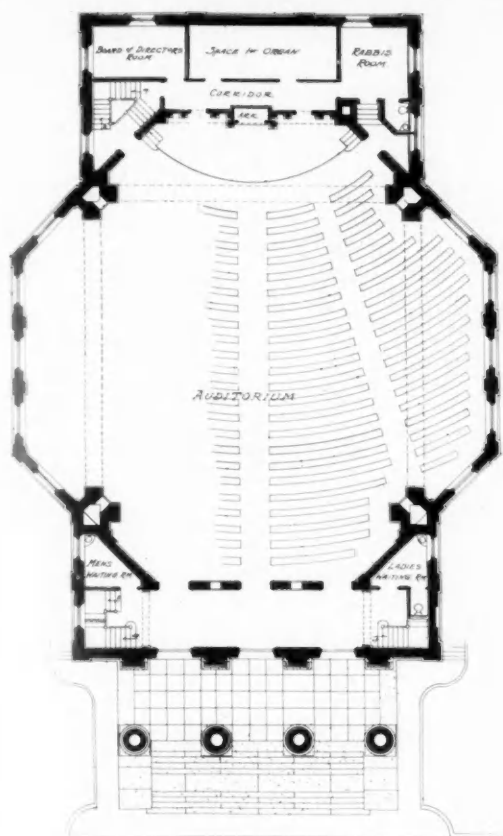


SYNAGOGUE AT RICHMOND, VA. NOLAND & BASKERVILLE, ARCHITECTS.

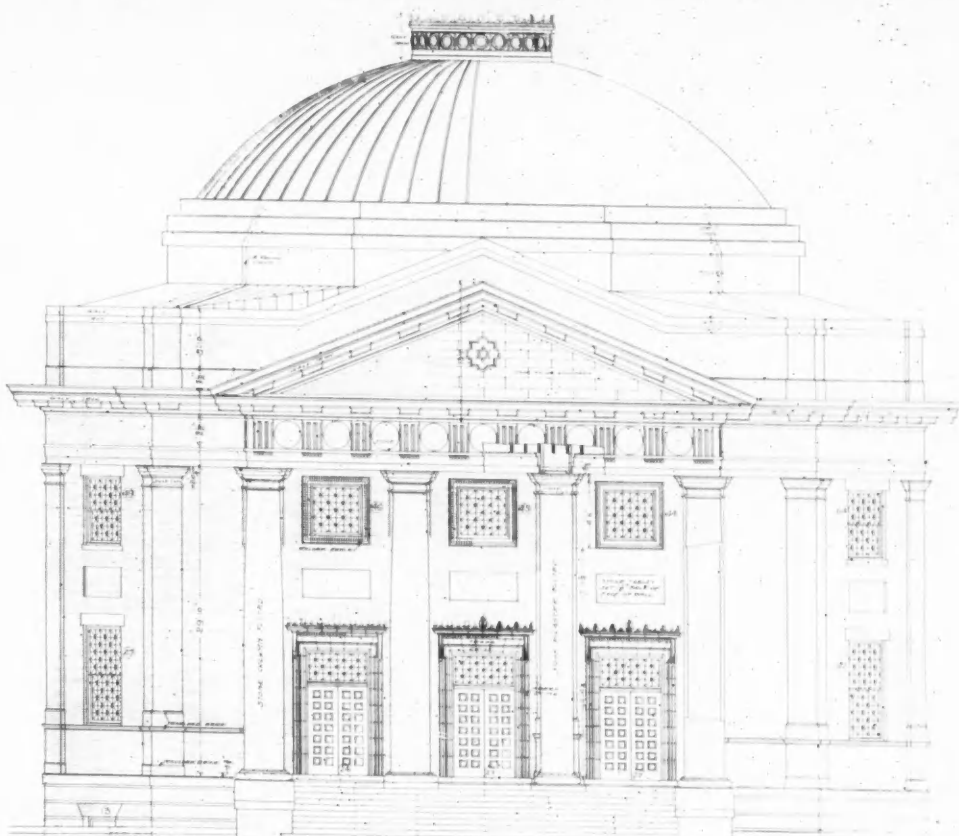


SYNAGOGUE AT NORFOLK, VA. JOHN KEVAN PEEBLES, ARCHITECT.

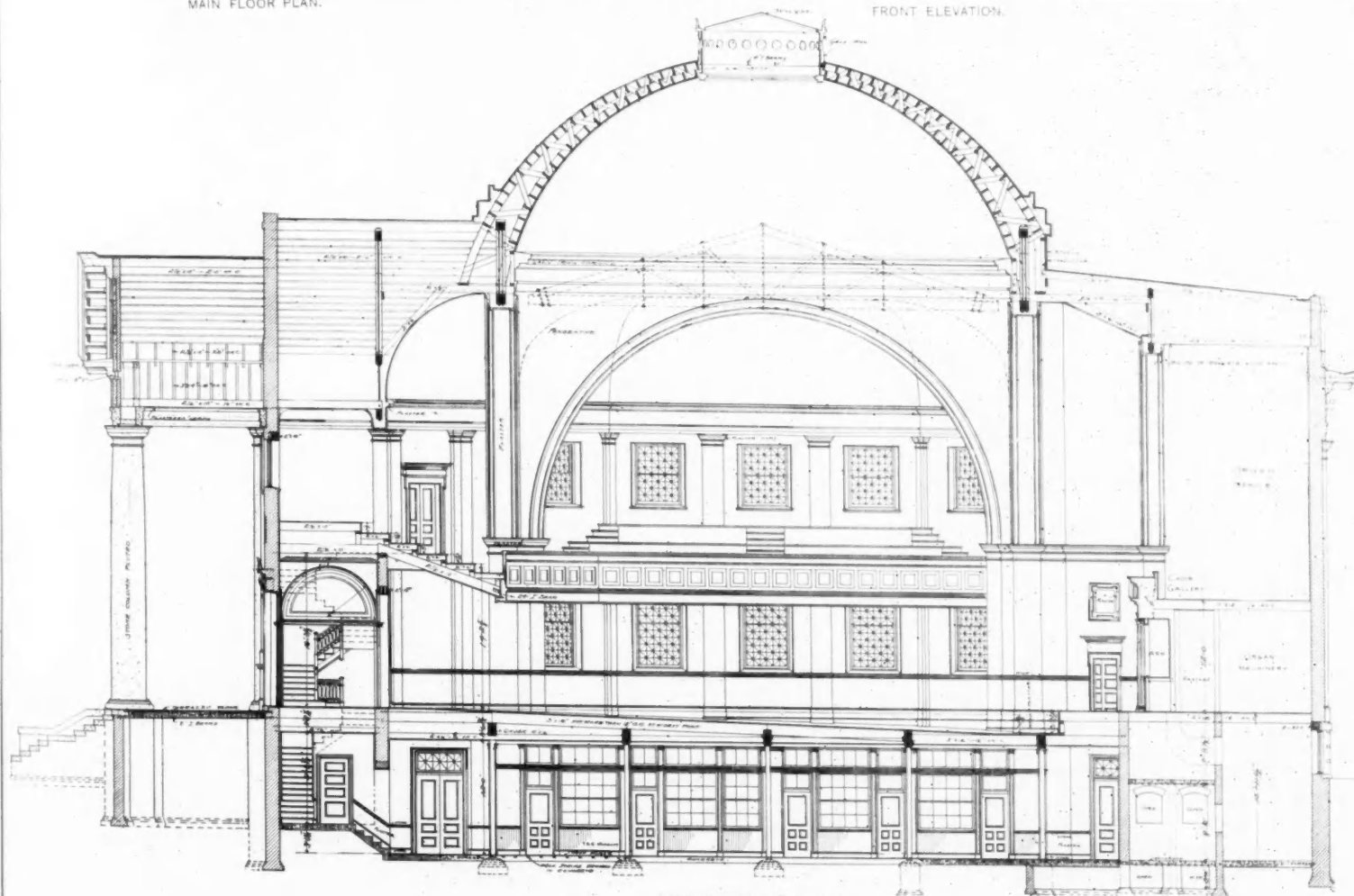




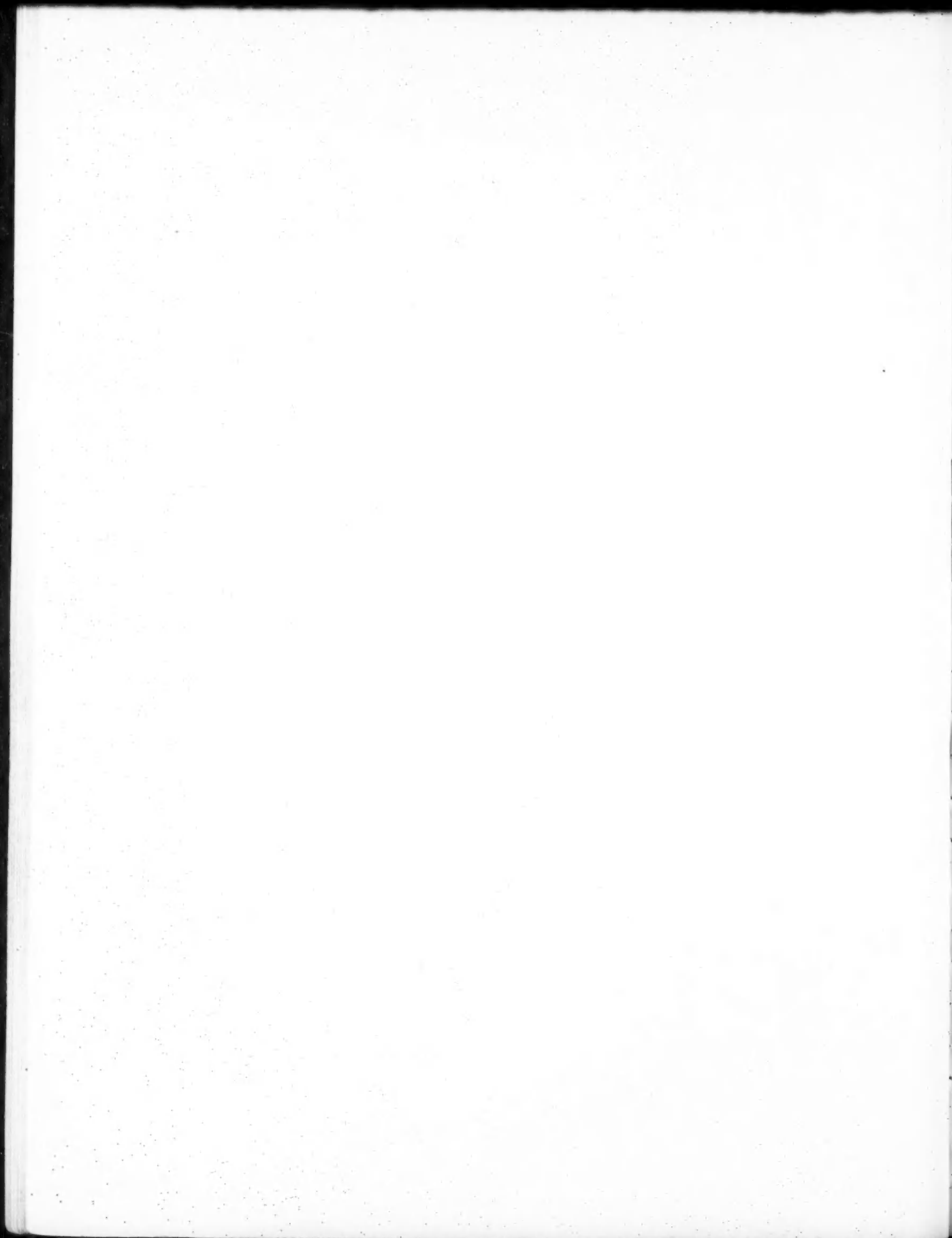
MAIN FLOOR PLAN.

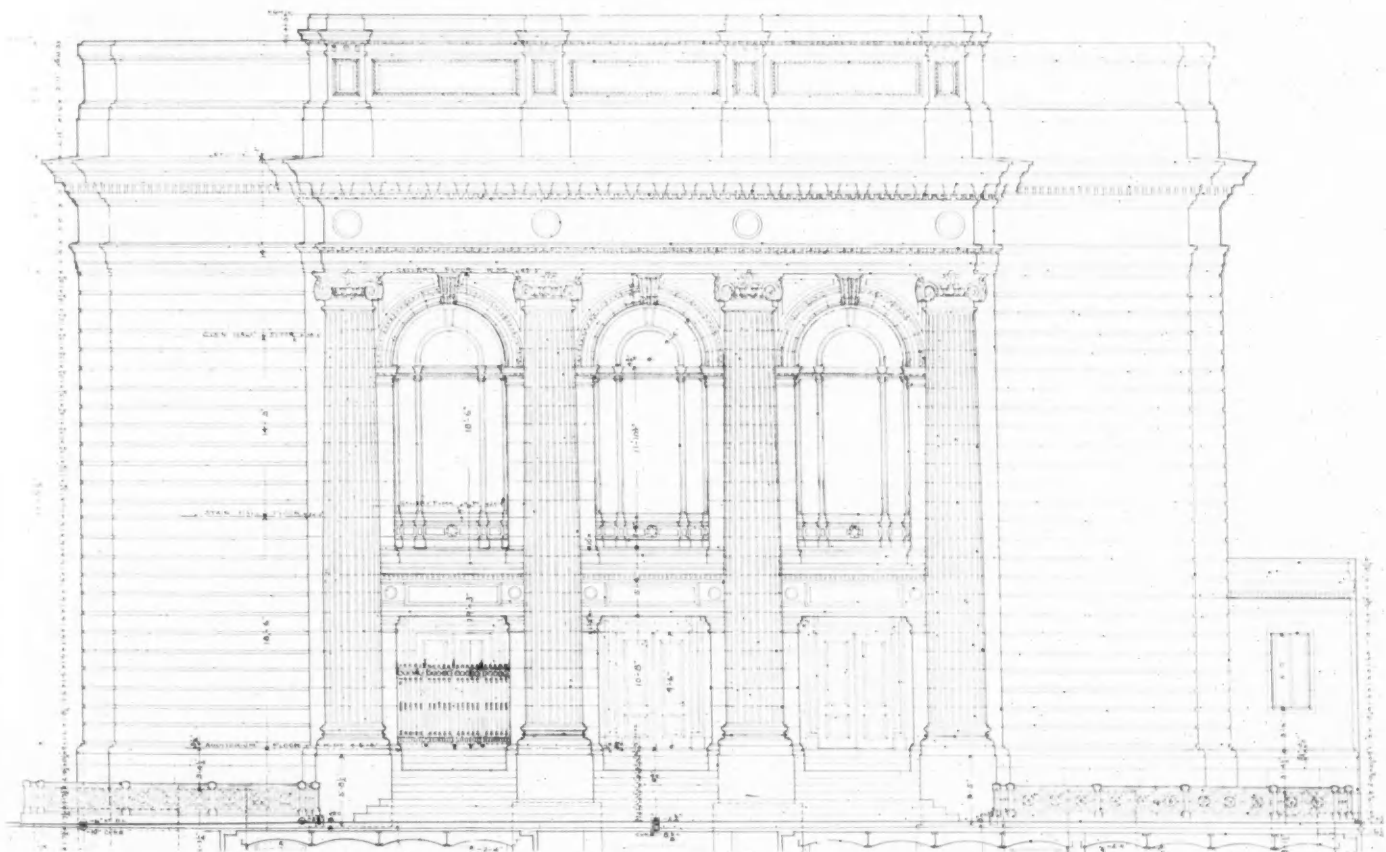
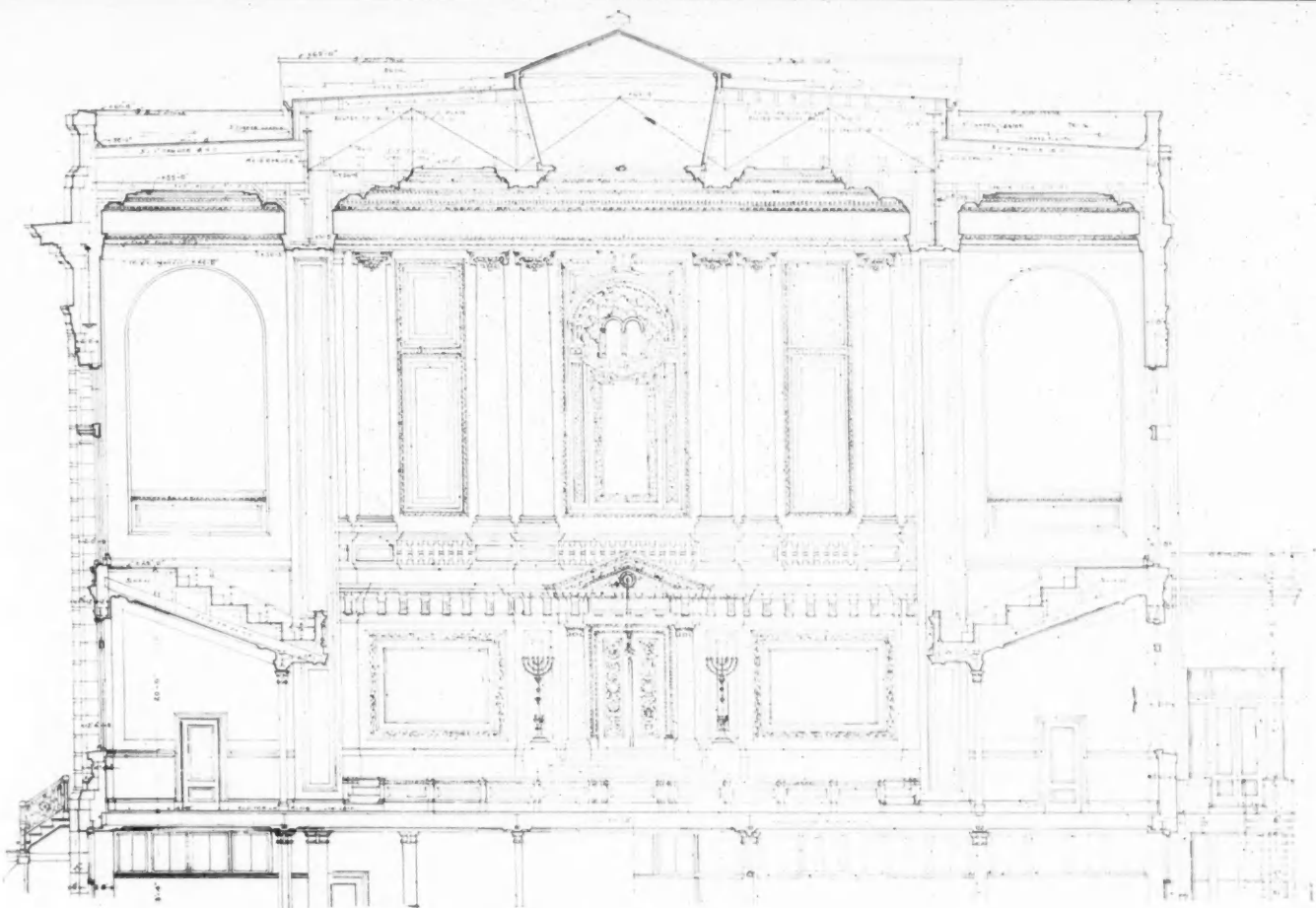


FRONT ELEVATION.

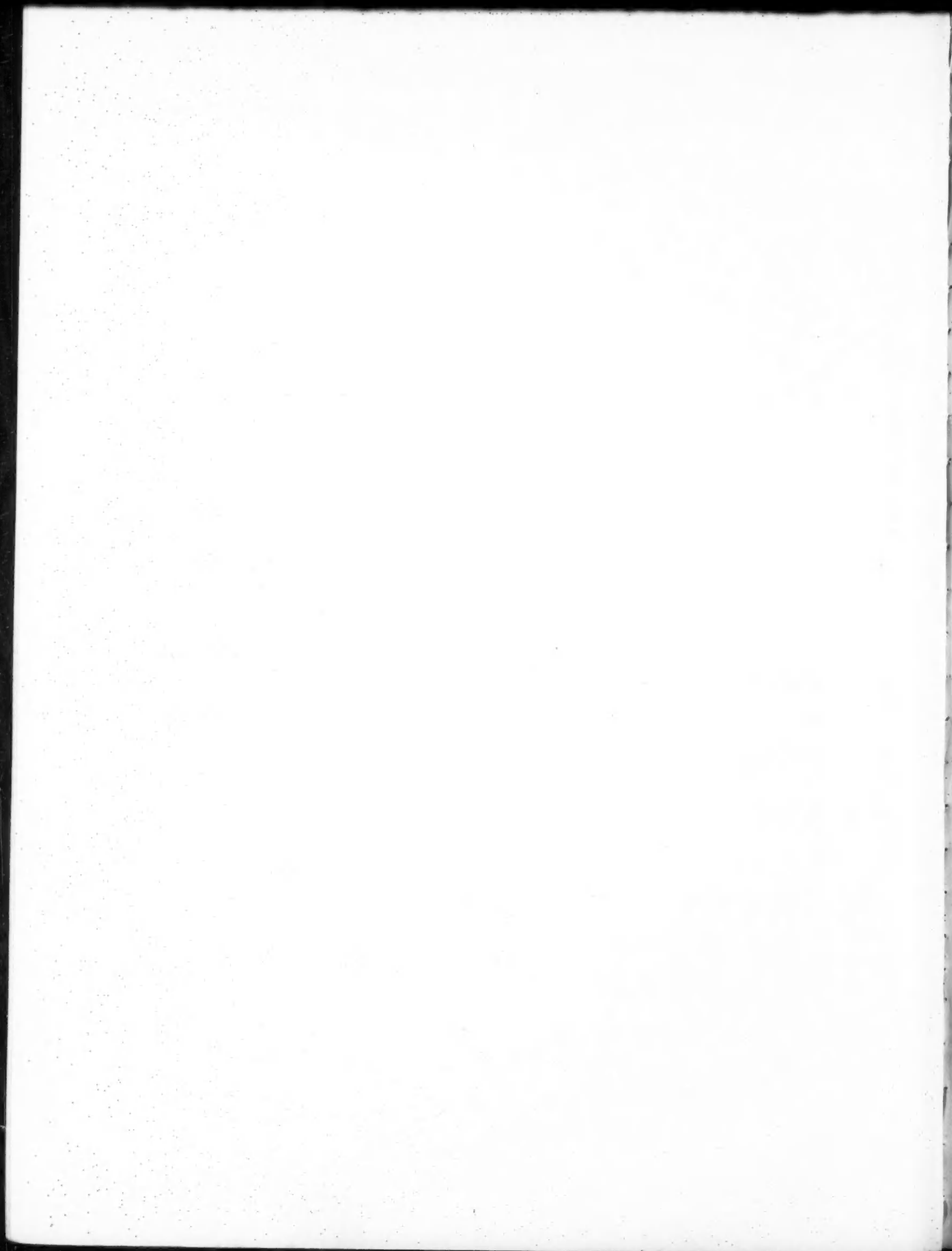


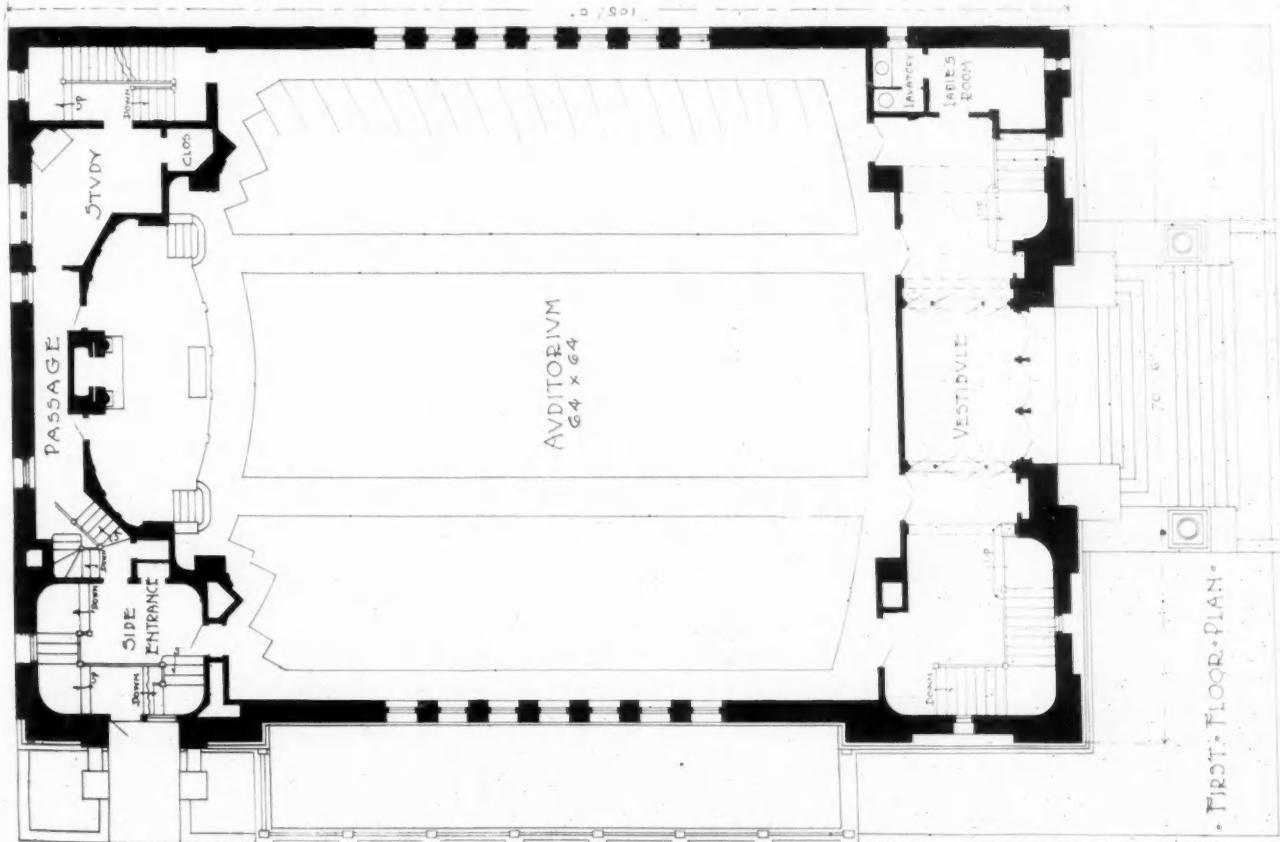
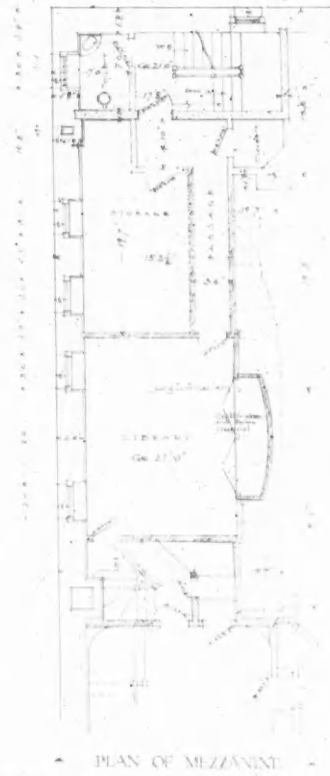
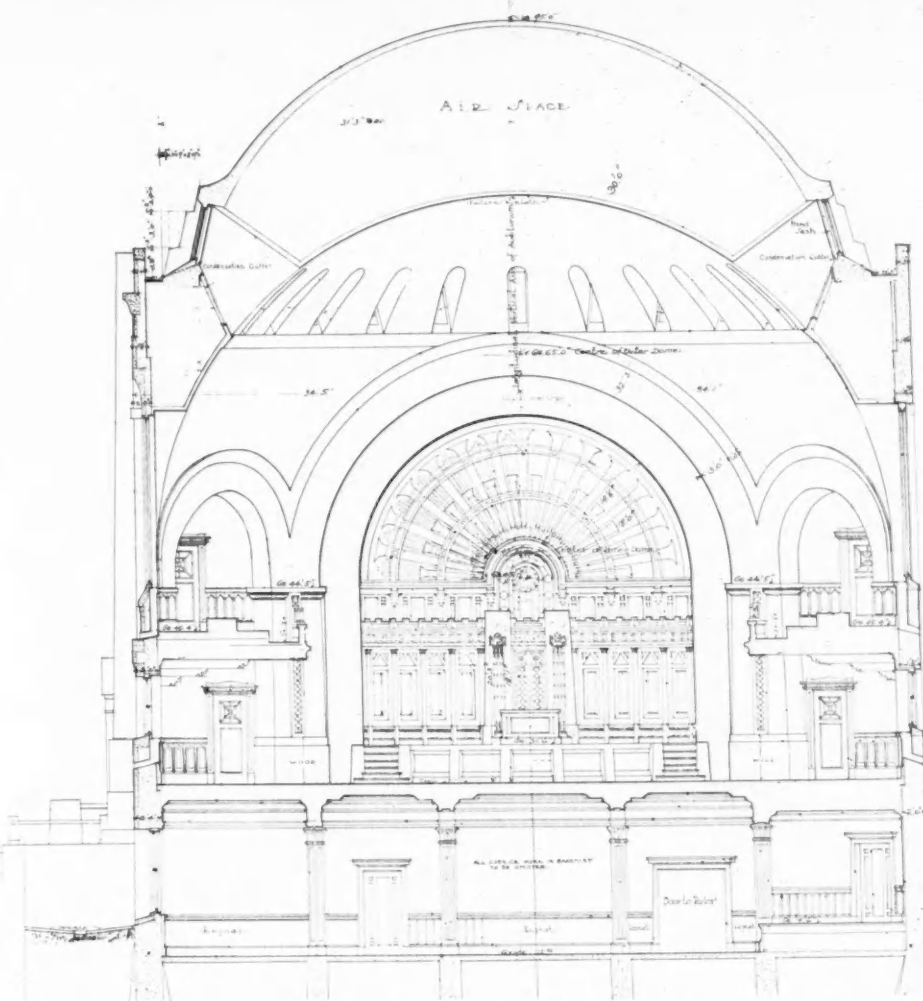
✓ LONGITUDINAL SECTION
SYNAGOGUE AT RICHMOND, VA.
NOLAND & BASKERVILLE, ARCHITECTS



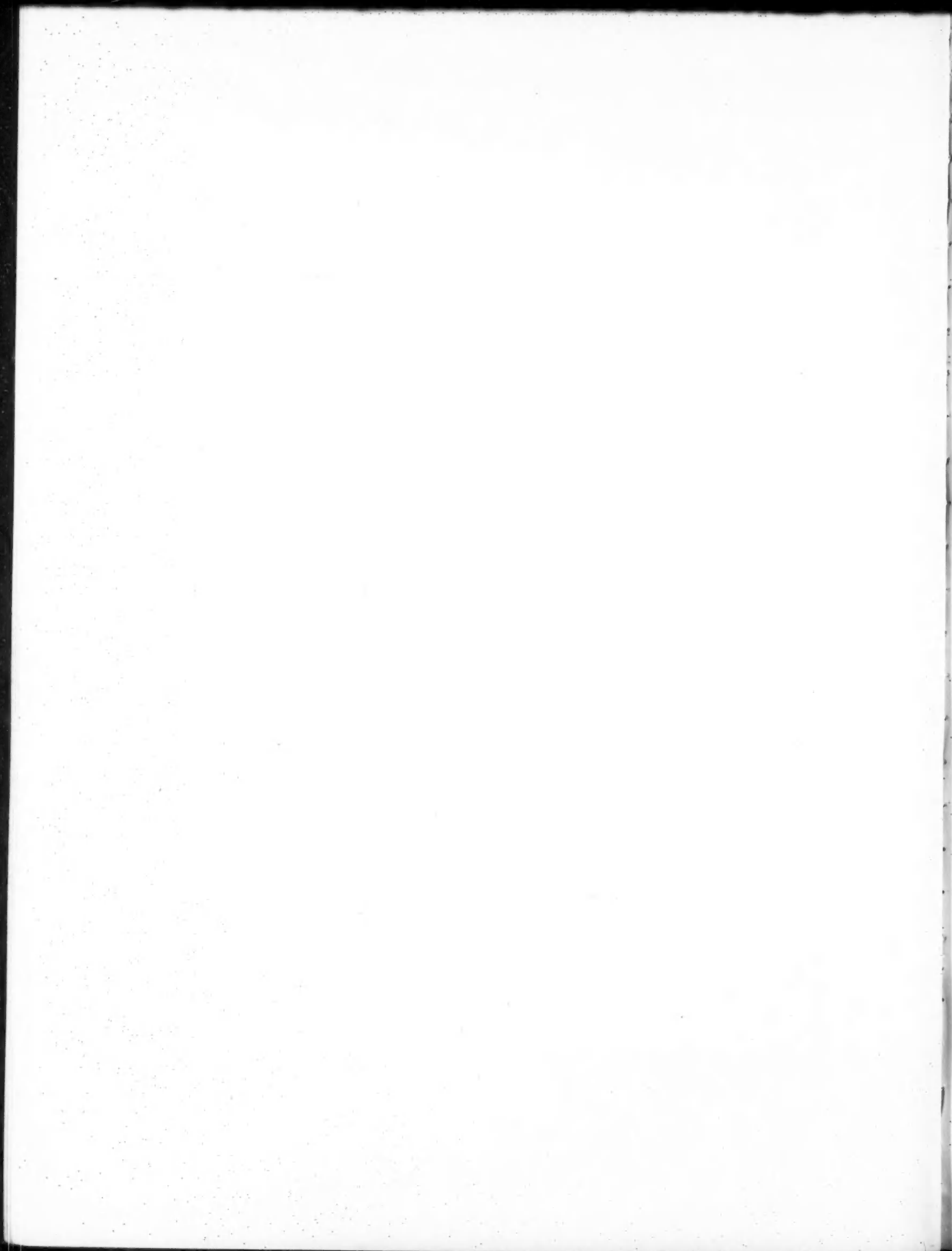


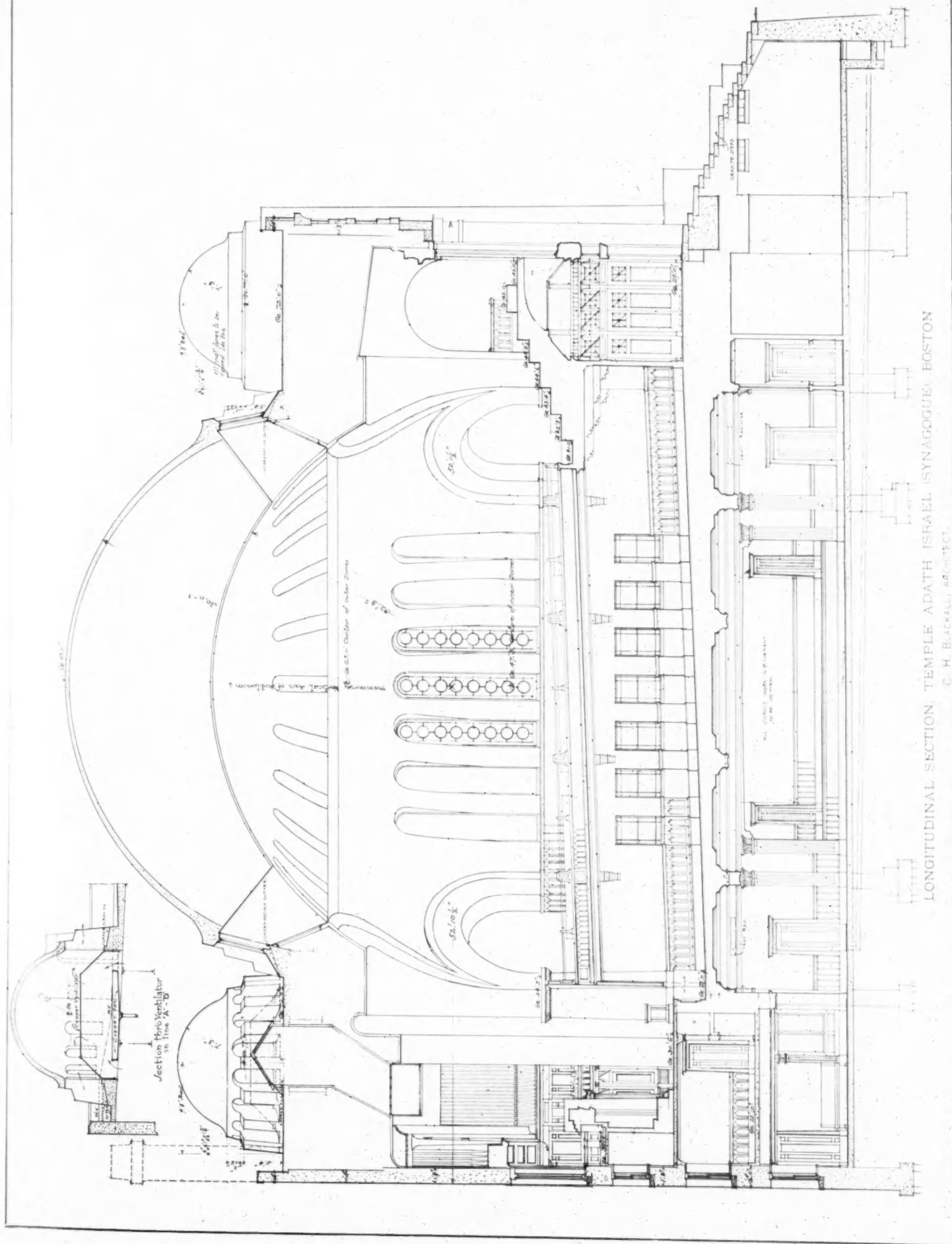
FRONT ELEVATION AND CROSS SECTION:
 TEMPLE ISRAEL (SYNAGOGUE), LENOX AVENUE NEW YORK
 ARNOLD W. BRUNNER, ARCHITECT.

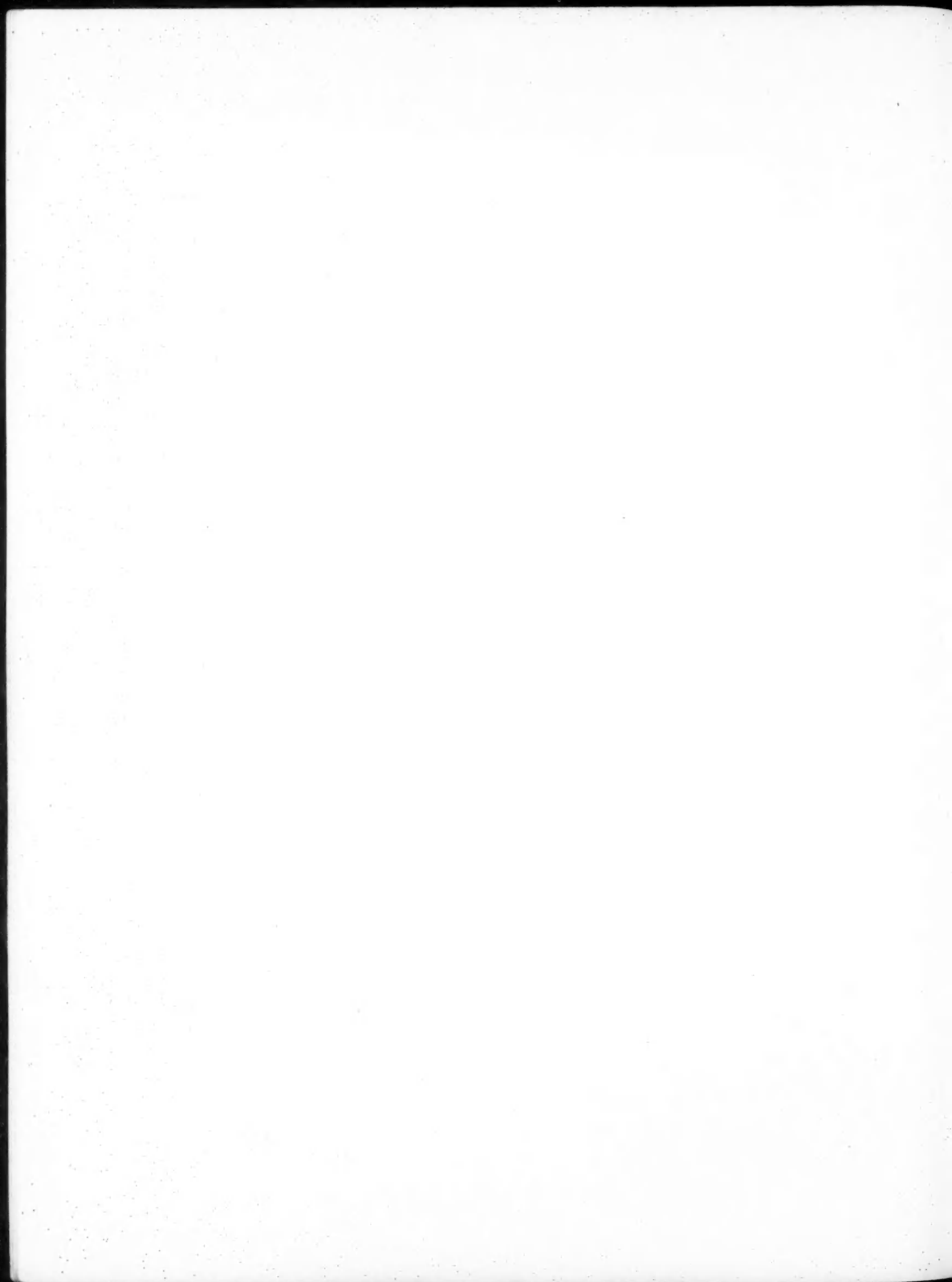




TRANSVERSE SECTION AND PLAN.
TEMPLE ADATH ISRAEL (SYNAGOGUE), BOSTON.
C. H. BLACKALL, ARCHITECT.







A New Attempt in House Architecture.

THOSE whose fate it has been to attend innumerable meetings of architectural societies, and to go through papers and addresses of all kinds, will know that there is quite a collection of old stock subjects which crop up at regular intervals; like the moon, they have their periods; and so it happens that we must be bored by prosy presidents turning over the dry bones of architecture, or by those wholly estimable people who say the most irreproachable things and perpetrate the most villainous architecture. Do we not recall those well-worn subjects which are the last refuge of the afflicted?—"The relation of Architecture to Sculpture," "The Architect-Craftsman," "Color in Architecture," and all the rest of these dear familiar friends. But it is this very subject of color in architecture which bears on the matter in hand. Some writers and lecturers have displayed a wonderful diligence in hunting up all records of color architecture, from the barbaric splendor of the Mycenaens to the latest fashion in sanitary distemper. It is not often, however, that we see any actual attempt to carry out in practice the schemes which are indicated in such glowing terms. Times without number we have heard proclaimed the merits of glazed material for city buildings, its cleanliness, its possibilities in overcoming blackening and decay and the bright notes of color which it can give to the common dullness of our thoroughfares. But beyond the use of glazed tiles for fire grates, as a lining for bathrooms and lavatories, or in dairies and butchers' shops, with now and then some piecemeal application to doorways or passages, there is little to record. Out of the category of zealous advocates who do nothing, however, must be taken Halsey Ricardo. Among English architects no one has been more persistent in his claims for glazed work and color schemes, and Mr. Ricardo's particular merit is that he has had the courage of his convictions and the ability to carry his ideas into effect. His greatest achievement is the house which has just been completed for a wealthy client, Mr. Debenham, at 8 Addison Gardens, in the West End of London. It is quite an amazing work, and is made all the more prominent by being surrounded by houses of the most uninspiring character—dull London houses of the seventies, with stuccoed porches and window trimmings made spick and span with paint at intervals, in harsh contrast to walls begrimed with the smoke and dirt of the metropolis. In such a setting is this wonderful new house, like a great gem amidst a heap of bricks.

The plan of the house does not call for any detailed description, as the accompanying illustration shows it clearly; besides, this house does not concern us so much for its plan as for its treatment with glazed work throughout; in passing, however, it may be noted what a very large hall is provided in the house, running up through the first floor and forming the center around which all the rooms are grouped; attention is also directed to the "pavilion," connected by a covered way with the dining-room; this is really an open air breakfast room and, facing southeast, its position is peculiarly appropriate; moreover, this side of the house fronts on a large garden that runs back to the wooded boundary of

Holland Park; the garden scheme, in fact, is a very important feature; at the front of the house there is a Dutch garden, at the side is a squash court, the roof of which forms a terrace, and at the back of the house are lawns for croquet and tennis, with a large garden, beautifully laid out and embellished with a fountain.

On referring to the illustrations, it will be seen that the exterior of the house is treated with a series of wall arcades, above which comes a richly-modeled cornice, and, over this, an attic story.

It is first necessary to describe the color scheme, and here let it be noted that illustrations are sadly deficient in this respect, though the photographs were taken on specially-prepared color plates in order to secure as correct a rendering as possible.

The "frame" of the exterior, so to speak, is built up of blocks of Doulton's Carrara ware of a pleasing creamy-white color, with bands of a soft green tint above the arcading. The material has a glass surface; not highly glazed, however, but with a comparatively dull surface, and of good texture. The filling of this "frame" is of glazed bricks. First, for a few feet above ground, purple-gray Staffordshire bricks are used—semi-vitrified bricks, well suited to their position. Then, for the ground-floor story the filling is of glazed green bricks of a rich hue, not uniform in color, but varying quite considerably, and so gaining an effect which would be impossible with bricks of one uniform tint. Above these on the first floor, the filling is of glazed bricks of a lively blue tint—also of differing shades, as elsewhere throughout the house; while on the attic story the filling is of glazed bricks of a peacock blue color. Completing the whole scheme is the roof with its green Spanish tiles, while at either corner rises a bold chimney "framed" with Carrara ware and filled in between with peacock blue glazed bricks as used for the attic story.

The effect of this scheme is most brilliant, yet not in the least gaudy; it is clearly the work of a man possessing a keen sense of color, and the ability to handle it successfully.

But this house is notable not only as a treatment of glazed material on the exterior; the same treatment is extended throughout the interior, with the addition in parts of some magnificent De Morgan tile patterns and peacock designs in blue and green. Over the vestibule door, for example, is one of these peacock panels, while the view of the pavilion or open-air breakfast-room shows the tile pattern that runs along the wall of the covered way to the dining-room.

The large hall in the center of the house is a most striking example of the use of glazed tiles for interior decoration and finish. Extending from skirting to cornice, these tiles are of varying tints of blue, and, in conjunction with the marble work, constitute a lovely scheme of color. (The illustration of the hall shows the wall whitewashed above the cornice; this is only a temporary arrangement, as the space will ultimately be covered with mosaic.)

A similar treatment of blue glazed tiles is seen on the staircase and corridor walls; in the dining and drawing-



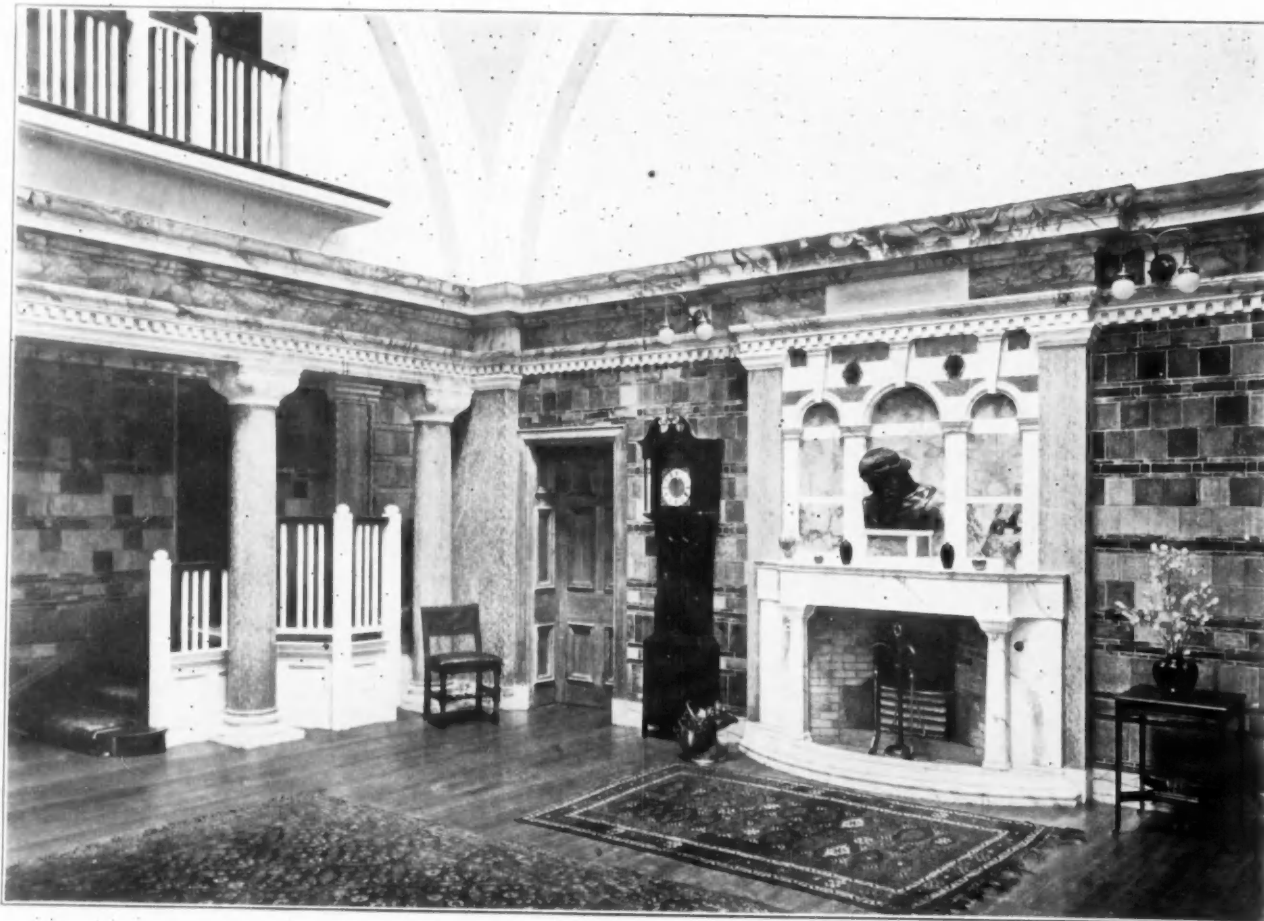
HOUSE, NO. 8 ADDISON ROAD, LONDON, W., SIDE VIEW.



HOUSE, NO. 8 ADDISON ROAD, LONDON, W. GENERAL VIEW.
Halsey Ricardo, Architect.



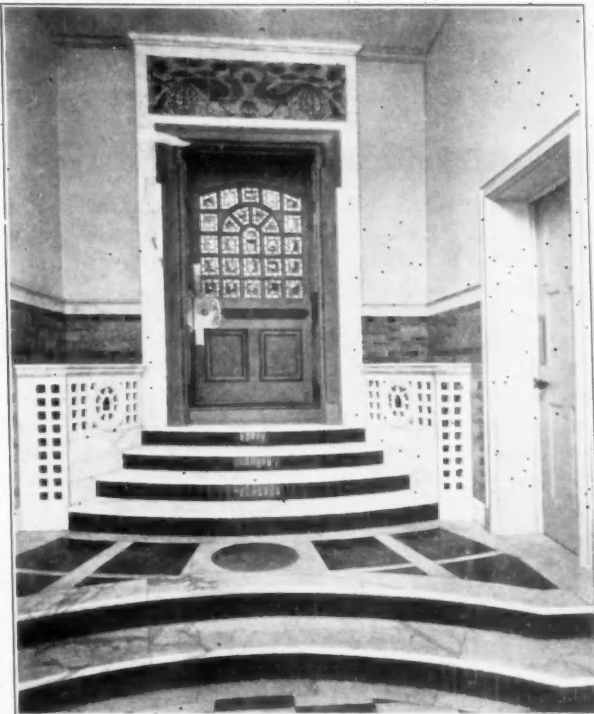
THE PAVILION OR OPEN-AIR BREAKFAST ROOM.



THE HALL.

rooms, too, we find tiles used in conjunction with the marble mantelpieces.

Throughout the house it is apparent that every detail has been evolved with the greatest care. There is not an atom of that feeling which is commonly associated with the trade firm imported to carry out a special design. In this case the architect has first worked out his general treatment, and having set up his standard has gone forth to achieve it; he has experienced no little difficulty in his task, for makers of such things as tiles have been spoiled by the craving for uniformity and "faultlessness" of surface, and it is not easy to get those varying shades of the kiln which, when used discreetly, can produce such entrancing results. Mr. Ricardo has not been able to pick up his material from the stock patterns of the showroom; on the contrary, there has been a diligent search and experiment, a vigorous selection and throwing out of what was not quite



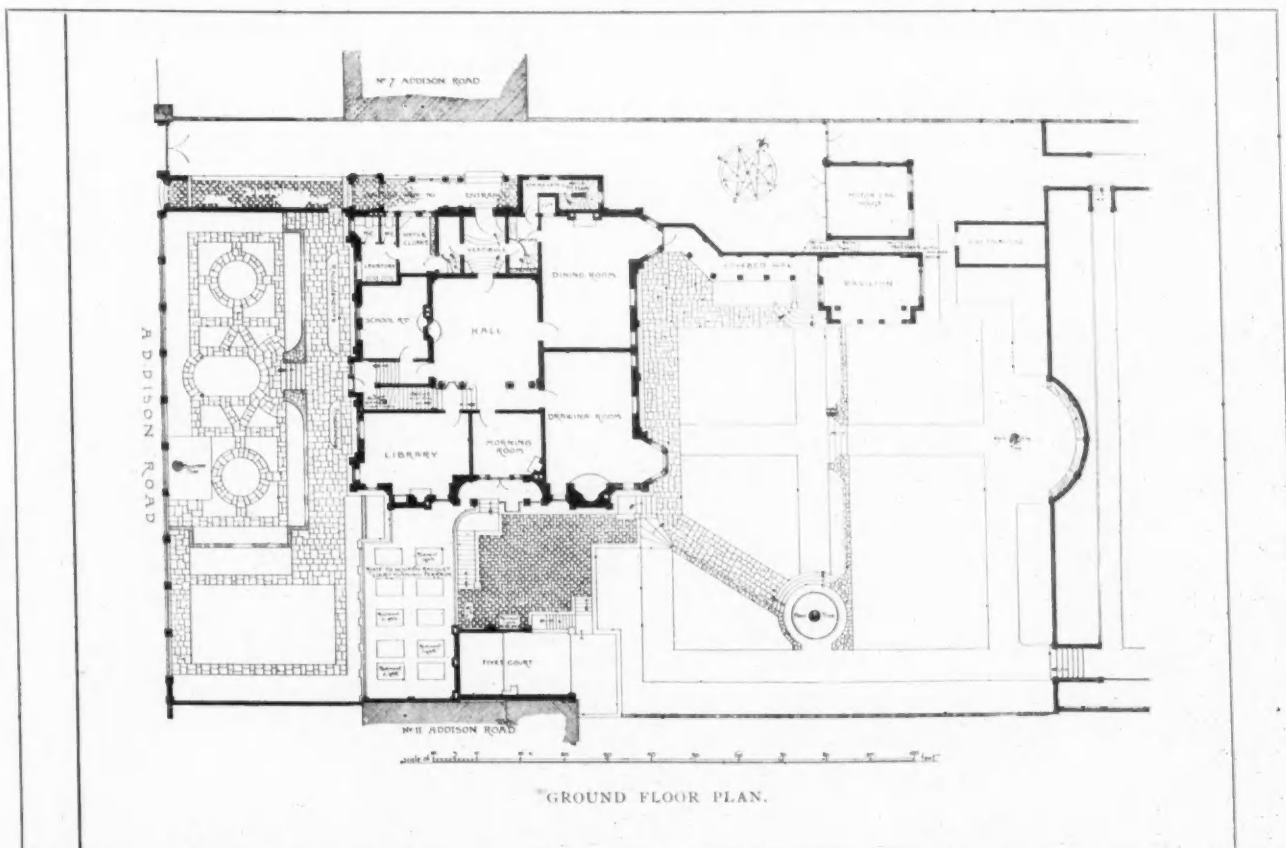
THE VESTIBULE.

desired; everything has been obtained in exact accordance with the architect's scheme, and the result is eloquent. The color of the glazed brickwork is in itself a delight to the eye, while the total tone-value of the house is as pleasing as it is uncommon.

This, then, is the house where Mr. Ricardo has carried out his ideas with such striking success. He has had ample means at his disposal — in fact, the house, when complete, will have cost more than \$250,000 — and, as enhancing the effect of the rooms, mention must be made of Mr. Gimson's modeled plasterwork on the ceilings and Mr. Prior's stained glass.

The house strikes quite a new note in domestic work, and is sure to be copied as an example of the great possibilities which glazed materials offer, not as subsidiary or as embellishments to ordinary

materials, but as constituting the entire treatment of a house, both internal and external.



GROUND FLOOR PLAN.

Terra Cotta Block Walls for Dwellings

WE have received some suggestions from Architect Frederick G. Corser, of Minneapolis, concerning the use of hollow terra cotta blocks for building the walls of dwellings, which evidence progressive thought on lines of application of good material to sensible and desirable structural functions. Mr. Corser's argument is, that while many clients are willing to spend money on the architectural detail and interior trim of their houses, they do not give the same considerations to structural needs.

In seeking for a rational solution of a vexing problem, Mr. Corser has been using hollow terra cotta blocks for the wall construction, and finishing the exterior surface with roughcast plastering, substantially as illustrated in his detail (Fig. 1), which has merits over the boarded frame covered with plastering.

While such use of terra cotta blocks is not new, it is a desirable one; especially for moderate-cost houses, and may well be used in dwellings of considerably above the average cost, unless the client desires and is willing to pay the cost of brick or stone.

Standard make of terra cotta blocks have a coefficient of strength quite sufficient for buildings of moderate stresses; and when such blocks are filled solid with good concrete they make for a wall about as strong as solid brick or stone work. Masons can build such walls and make a good job of it if exercising the same care in laying and bonding as they would for brick or stone work. If the blocks are not too porous the surfaces will take and hold the exterior plastering, which will become a solid part of the wall, — if the facing is of good Portland cement. But if the blocks are too porous they will suck too much water from the fresh plastering, affect its intimate adhesion and make it brittle when set; so it is best to use in such cases a semi-dense terra cotta product.

This scheme of walling has the advantage of hollow spaces within the walls which make a house warmer in winter and cooler in summer, and less liable to retain dampness than a more solid wall of brick or stone, for the cellular wall readily takes in the internal heat of the house during the winter months, and when the cells have absorbed their full of heat they will retain it and afford protection against excessive changes of external temperature, more so than that of wood frame construction, and also with the external and interior plastering done directly upon the walling, give an extra solidity and protection against fire and vermin.

The standard shapes of terra cotta blocks are well adapted to this system of walling, and special shapes can be easily made to fit designs of door and window treatment; and for dwellings of more than moderate cost the architectural detail can be of finished clay products, which are much more desirable and more to be depended upon than other materials.

Our chief criticism of the accompanying detail is that the wall had best be built solid with terra cotta blocks; *i. e.*, laying the blocks back to back without interspaces between them. The extra air space (as per detail) is of no material advantage, presents some objections from a practical point, in respect to having the work level, plumb and true. An eight-inch wall with thorough bonding and blocks set back to back would be as strong as the

twelve-inch wall shown, and would cost considerably less to lay up, for the needful care desirable to erect such walls in good shape would not be so much. Such compact building would afford more stable support for floors and roof bearings.

The laying of the blocks with the cells horizontal is a good scheme for it allows better beds and joints of mortar than a vertical setting, — has the advantage of confining the retained air in small chunks, and relatively even distribution. The matter of strength either way would be of no material difference.

The detail shows too much air space in back of the concrete sill; the woodwork of the window frames is likely to shrink some, allowing moisture to gather and affect the inside finish, — this space should be well filled and grouted with mortar; also the

side boxing and sashes should be so detailed as not to necessitate the plowing out of the back of the outside casing for allowance for weights to run. If the cincture is made (we are of the opinion that the majority of carpenters will skip it) it adds an item of cost which is needless.

This method of wall building and external finish has one material advantage — for the owner — provided the exterior plastering is thoroughly well done — in that it saves the cost of painting and repainting. The general idea of design, because of its more solid and dignified character, would lead the architect to eschew the too common trivialities of wood detail and staff embellishments (?) which more often fret and disfigure than add beauty to an otherwise well-studied design.

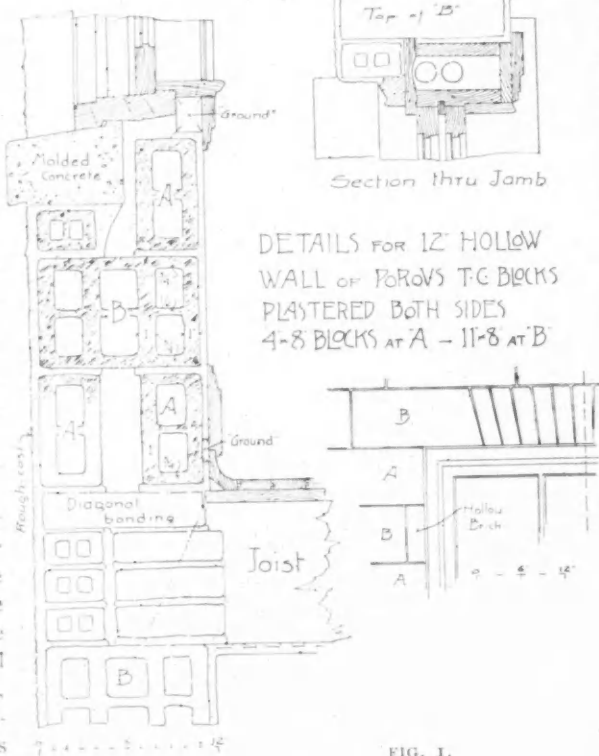


FIG. 1.

Editorial Comment and Selected Miscellany

NEW PLAN FOR THE IMPROVEMENT OF BOSTON.

SOME two years ago the Boston Society of Architects began the collection and coordination of the various schemes which from time to time had been presented and discussed by the public, looking towards the improvement of the city. Boston is not in the foremost line in respect to its general arrangement. The city was originally built in a most irregular manner, with absolutely no consideration to growth, thoroughfares or placing of public buildings. Possibly that is the very charm of the city; certainly we should be very sorry to see it lose its distinctive air, and one who is familiar with its tortuous streets and by-ways is very apt to consider them a convenience rather than otherwise. At the same time it is surprising how many ways have presented themselves in which the city could be reasonably improved, and the Society of Architects has just presented a report covering the work which it has investigated. This is a kind of public service which nobody could do so well as a body of trained and educated architects. It is a service which includes factors as wide apart as sites for a city hall and docks for steamship traffic, which takes into account intercommunicating lines of boulevard around the out-

side of the city as well as subway stations in the heart of the most congested portion. The report is only tentative but it has already aroused so much general approval and interest that a bill has been favorably reported to the legislature providing for the appointment of a technical commission, which shall exhaustively study and report upon this matter. It is to be hoped that the Society will be largely represented on this commission, and such will undoubtedly be the case, but the average politician, and the public generally, might very easily forget how thoroughly work of this kind is in line with an architect's bent and training. It is along such lines, in fact, that the differences between the point of view of the architect and the engineer or the architect and the landscape designer make themselves most manifest. The architect's training leads him to study mass first and detail only as an incident. In both the other professions the tendency is to consider mass as an aggregate of details, each of which is of vital importance. In considering municipal improvements the detail is, after all, of the least importance, and the general scheme is what has to be most carefully adjusted. One of the schemes reported by the Society provides for a huge system of docks in Dorchester Bay, involving an expenditure of something like forty million dollars. We imagine our engineering friends would possibly be somewhat surprised to know that the extensive dock improvements in Copenhagen, which rank among the most successful of their kind in Europe, were planned and carried out under the immediate direction of an architect, and while possibly the



HOUSE AT DES MOINES, IOWA.

Liebke, Nourse & Rasmussen, Architects.

Built of Standard Gray Brick made by Ohio Mining and Manufacturing Company

details of construction would be essentially engineering, the general planning of improvements of this sort is such as would call for an architectural mind.

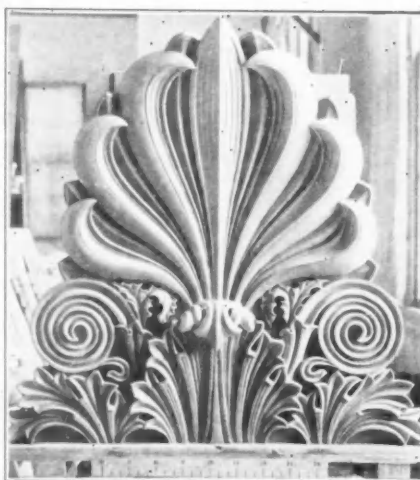
This report of the Society was printed with the cooperation, as to expense, of several of the other prominent business and civic organizations, but the credit for the whole is due to the Society, and it has certainly performed a public service in an admirable way.

THE SPIRIT OF ARCHITECTURE.

IN Mr. Walker's article in THE BRICKBUILDER for December he referred to "the economies of conditions, the predilections and prejudices of patrons, and the enervation that insidiously creeps in upon all artists, because of the deadly slowness of realization compelled by the lapse of time in the process of building." These are conditions which constantly beset the architect in his daily practice. Their untoward influences are not limited to those who win the great opportunities but they are just as potent factors in the growth of the humblest practitioner. The tendency to lower one's ideals, to be content



HOUSE AT RYE, N. Y.
Grosvenor Atterbury, Architect. Roofed with Ludowici-Celadon Tile.



DETAIL BY D. H. BURNHAM & CO., ARCHITECTS.
Northwestern Terra Cotta Company, Makers.



DETAIL BY MCCORMICK & FRENCH, ARCHITECTS.
Brick, Terra Cotta and Tile Company, Makers.

with second best, to compromise with seemingly irreconcilable practical conditions, is responsible for more bad architecture, for more slow decay of innate ability, than we would sometimes be willing to admit. A prominent educator was recently discussing the question of the salaries of the professors in our universities, and he spoke of the fact that most teachers who are

as the problem was a new one, and the commission having it in charge proceeded very cautiously. The example of the New York subway, however, showed beyond a doubt that if a reasonable attempt was made to decorate the walls of the stations the public would not only feel an interest but would approve. When the second installment of subways was started in Boston, the designs of stations followed the same lines as in the older work, but it is encouraging at least to know that now, largely through the efforts of the railway company which is to lease and operate the subway, some serious study is being given to the decoration of the wall surfaces. The work has been entrusted to one of the best architects of

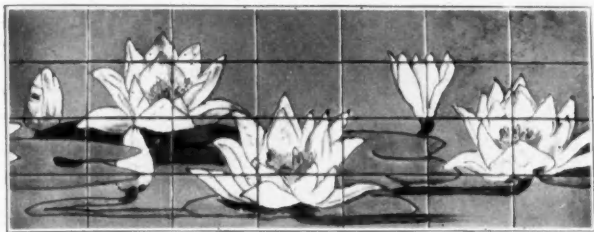
really such by instinct would feel that the opportunities afforded in an academic life for study and introspective culture would go far to offset the financial limitations. The same is true of architecture to a certain extent. There are a few in the profession who have large opportunities. But after all, most men who really love their profession, who give themselves unreservedly to it, who build their life blood, as it were, into their work, must be content with no more than a fair average competence. There have been but few architects in this age who, while wielding great powers and reaping large monetary returns, have been able to mold their work, their best aspirations and their clients' wishes together in such a manner as Mr. Walker describes. Many have done this on a small scale. Only genius can do it on a large one.

SUBWAY DECORATION.

THIS journal has for years urged that the walls of subway stations should be treated in some other manner than as mere engineering surfaces. When the first subway was built in Boston, economy was a paramount consideration,



DETAIL BY FRANK S. LOWE, ARCHITECT.
South Amboy Terra Cotta Company, Makers.



FRIEZE FOR A BATH ROOM.
Made by Rookwood Pottery Company.

the city and studies are being made embodying combinations of bronze and tiling which promise very well. There has been a good deal learned in the past as to what will stand and what will go to pieces along such lines and as to how best to apply the material to the constructions, and even if the present attempts do not lead to the very best results they will at least be in the right direction and prepare the way for the future. It is inevitable that all our large cities will in time be equipped with systems of underground communication. It is the

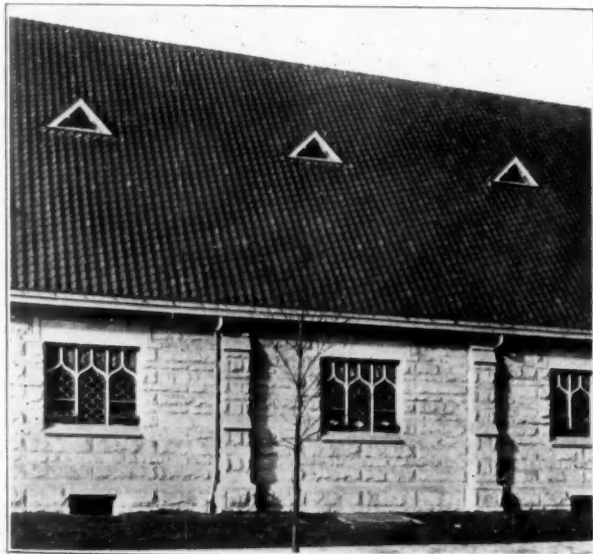


DETAIL BY D. H. BURNHAM & CO., ARCHITECTS.
Conkling-Armstrong Terra Cotta Company, Makers.

only logical solution of the metropolitan transit problem and has been worked out pretty carefully and satisfactorily as an engineering problem. It only remains for the architects to so finish the engineering work that what is now tolerated as a practical necessity shall become an artistic addition to the public functions.

WATERPROOFING WITH CEMENT.

IT is often assumed that a solid concrete wall, if constructed in proper manner, would be practically impervious to moisture. As a matter of fact, it is almost im-



AN AMERICAN "S" TILE ROOF.
Made by Cincinnati Roofing Tile and Terra Cotta Company.



HARTE BUILDING, PITTSBURGH.

Charles Bickel, Architect.

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possible to make any concrete wall tight unless some special provisions are made for waterproofing. In the region around Boston the common practice in waterproofing cellars and walls is to make a seal of tarred paper set in hot tar and held in position, either against the walls or on the floor, by a top layer two or more inches thick of cement. If done with proper care, this will give most excellent results, but it is a clumsy expedient, taking up a good deal of space, and the inner layer of concrete is an expensive protection, besides not being perfectly sure of holding its place. Various attempts have been made to devise some material which could be incorporated with the cement to render the concrete more impervious to water. Soap and alum have been regarded as a



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waterproof solution and have been used for that purpose with varying success. Better results have been obtained by incorporating with the concrete a substance in a powdered form which seems to more completely fill the pores. There are several such powders on the market, of which a fair example is that manufactured under the name of Medusa Waterproofing, which has been used in many cases with excellent success. Unless precautions of this kind are taken, a concrete wall is hardly more impervious to water than a wall of good hard burned brick laid up in Portland cement mortar.

IN GENERAL

The examinations for the Rotch Traveling Scholarship will be held in Boston beginning April 15. Anyone who has been employed during two years in professional work in the Massachusetts office of an architect resident in the state is eligible for the competition. Preliminary examinations are held in History of Architecture, Construction, French and Drawing from the East. Graduates from a regularly accredited architectural school may present their diplomas in lieu of these examinations. Those who are successful in the preliminary examinations will be admitted to the final competition in Design upon which the award will be made. The successful candidate receives \$1,000 per year for two years to be expended in study and travel abroad. Further details can be obtained upon application to Mr. C. H. Blackall, Secretary, 20 Beacon Street, Boston.

The Department of Architecture of the Massachusetts Institute of Technology is to hold a competition to award a traveling scholarship of twelve hundred dollars. The award is to be made solely on the basis of distinguished merit, as it is felt that the prize would thus possess a greater value for the advancement of architecture than if restricted to benefit only the regular or the needy student.

Candidates, therefore, will be received from both reg-

ular and special students, but they must have passed two consecutive years in the Department within the last three years, and at least one of the years must have been in the graduate

class. They must besides have proved themselves during these school years to have been earnest students and of first-rate ability. The competition will begin April 12



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with the sketch *en loge*, and end May 18, and all the work upon it must be done in the Department. The winner of the scholarship is expected to sail for Europe by September 1, 1907, and to remain abroad a complete year unless otherwise authorized. He will travel and study under a programme prepared in consultation with the Department of Architecture and the Faculty.

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Marshall S. Mahurin, formerly of Wing & Mahurin, architects, Fort Wayne, Ind., has entered into partnership with Guy M. Mahurin who have opened offices under the firm name of Mahurin & Mahurin in Swinney Block, Fort Wayne, Ind. Catalogues and samples solicited.



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